

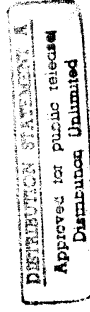
ROCKY MOUNTAIN ARSENAL  
NORTHWEST BOUNDARY CONTAINMENT/TREATMENT SYSTEM  
BASELINE CONDITIONS, SYSTEM STARTUP,  
AND OPERATIONAL ASSESSMENT

REPORT FOR FY 85/86

VOLUME II  
PLATES

by

Program Manager Staff Office  
Program Manager Rocky Mountain Arsenal  
Contamination Cleanup,  
Aberdeen Proving Ground, Maryland 21010-5401



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# REPORT DOCUMENTATION PAGE

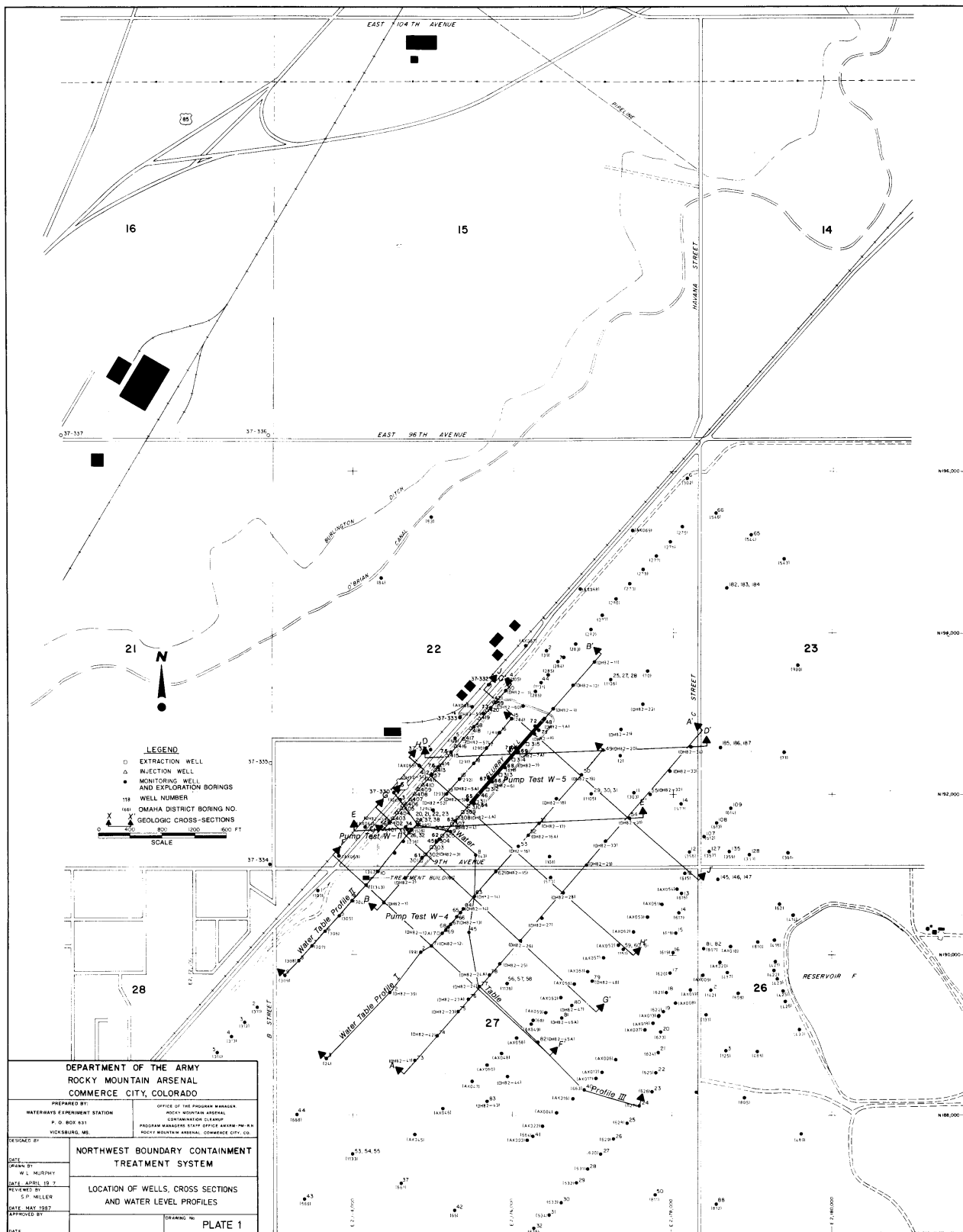
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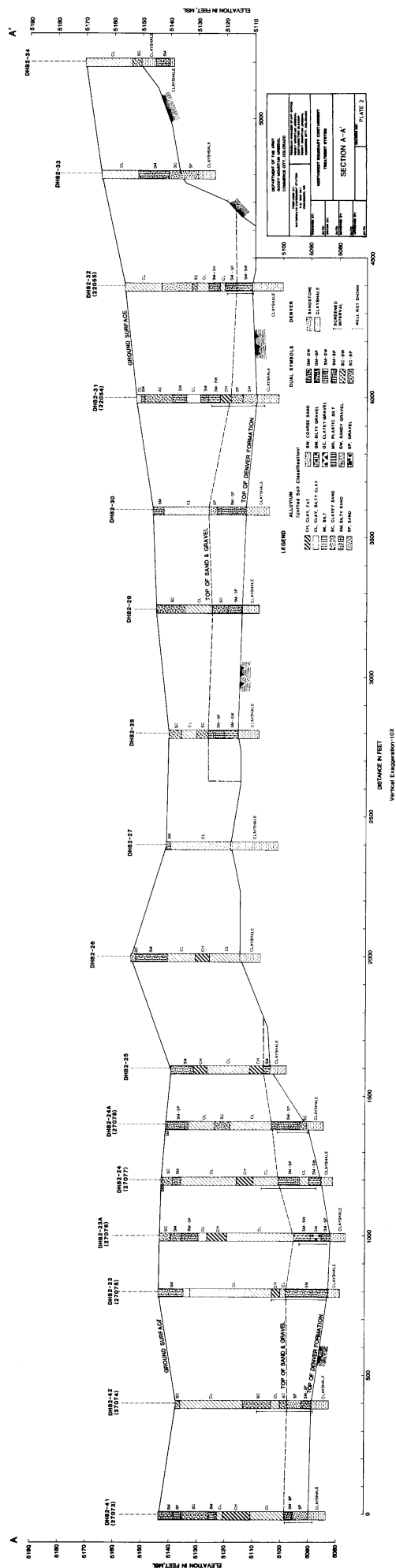
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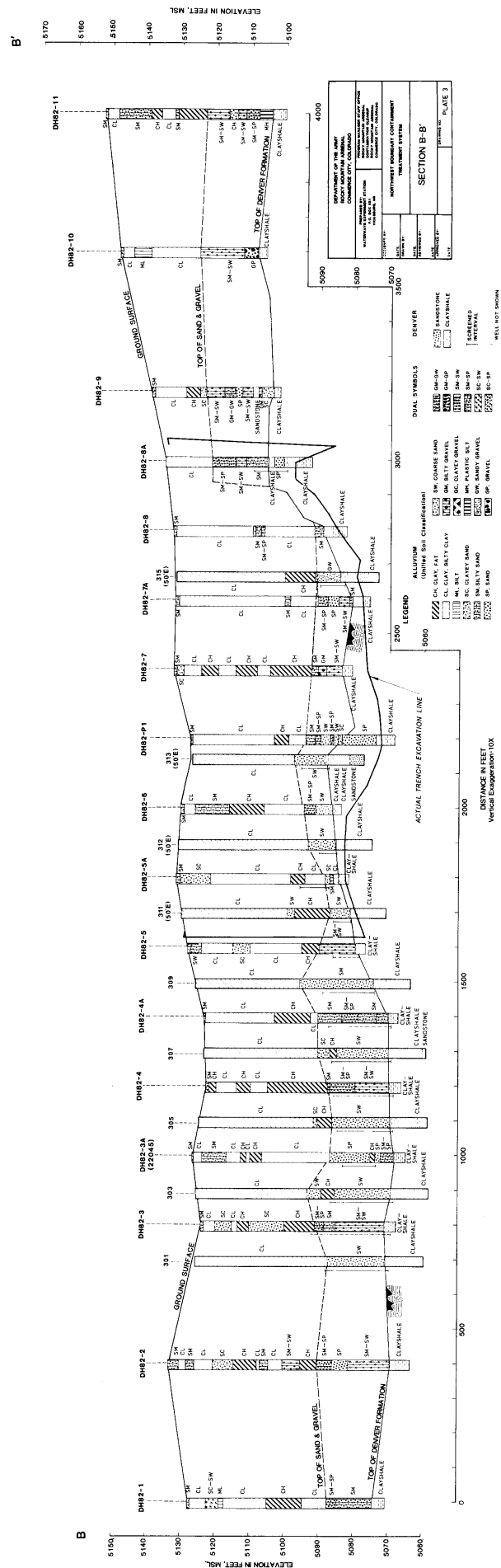
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|--|--|---|----------------------------|--|--|
| 1. AGENCY USE ONLY (Leave blank)   |  | 2. REPORT DATE<br>12/00/87              |                            | 3. REPORT TYPE AND DATES COVERED                         |  |
| 4. TITLE AND SUBTITLE<br>ROCKY MOUNTAIN ARSENAL NORTHWEST BOUNDARY CONTAINMENT/TREATMENT SYSTEM, BASELINE CONDITIONS, SYSTEM STARTUP, AND OPERATIONAL ASSESSMENT, REPORT FOR FY 85/86  |  |   |                            | 5. FUNDING NUMBERS                                       |  |
| 6. AUTHOR(S)   |  |   |                            |  |  |
| 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)<br>ROCKY MOUNTAIN ARSENAL (CO.). PMRMA<br>COMMERCE CITY, CO   |  |   |                            | 8. PERFORMING ORGANIZATION REPORT NUMBER<br><br>88054R01 |  |
| 9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)<br><br>ARMY ENGINEER WATERWAYS EXPERIMENT STATION<br>ABERDEEN PROVING GROUND, MD   |  |   |                            | 10. SPONSORING/MONITORING AGENCY REPORT NUMBER           |  |
| 11. SUPPLEMENTARY NOTES  |  |   |                            |  |  |
| 12a. DISTRIBUTION/AVAILABILITY STATEMENT<br><br>APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED   |  |   |                            | 12b. DISTRIBUTION CODE                                   |  |
| 13. ABSTRACT (Maximum 200 words)<br><p>THIS REPORT WAS PREPARED TO DOCUMENT AND ASSESS THE STATUS AND OVERALL OPERATIONAL PERFORMANCE OF THE NORTHWEST BOUNDARY CONTAINMENT/TREATMENT (NWBCT) SYSTEM. THE REPORT CONSISTS OF THREE VOLUMES:</p> <ol style="list-style-type: none"> <li>1. MAIN TEXT</li> <li>2. HYDROGEOLOGIC AND CONTAMINANT DISTRIBUTION PLATES</li> <li>3. DATABASES DEVELOPED TO SUPPORT THE EVALUATIONS AND ASSESSMENTS.</li> </ol> <p>THE REPORT COVERS THE OPERATING PERIOD OF OCTOBER, 1984, TO SEPTEMBER, 1986. THE OBJECTIVES OF THE REPORT INCLUDE:</p> <ol style="list-style-type: none"> <li>1. ASSESS THE CONTINUING EFFECTIVENESS OF THE NORTHWEST BOUNDARY SYSTEM IN PREVENTING OFF-POST MIGRATION OF CONTAMINATED GROUND WATER</li> <li>2. DOCUMENT SYSTEM OPERATING PARAMETERS</li> <li>3. IDENTIFY AND DOCUMENT SYSTEM IMPROVEMENTS</li> <li>4. IDENTIFY AND DOCUMENT OPERATIONAL IMPROVEMENTS THAT WILL ENHANCE LONG-TERM SYSTEM EFFECTIVENESS.</li> </ol> |  |   |                            |  |  |
| 14. SUBJECT TERMS<br>GEOLOGY, HYDROLOGY, CONTAMINANTS DISTRIBUTION, DEWATERING WELL DATA, GC/MS ANALYSES   |  |   |                            | 15. NUMBER OF PAGES                                      |  |
|  |  |   |                            | 16. PRICE CODE   |  |
| 17. SECURITY CLASSIFICATION OF REPORT<br>UNCLASSIFIED  | 18. SECURITY CLASSIFICATION OF THIS PAGE | 19. SECURITY CLASSIFICATION OF ABSTRACT | 20. LIMITATION OF ABSTRACT |  |  |

# **GEOLOGY PLATES** **01 thru 13**

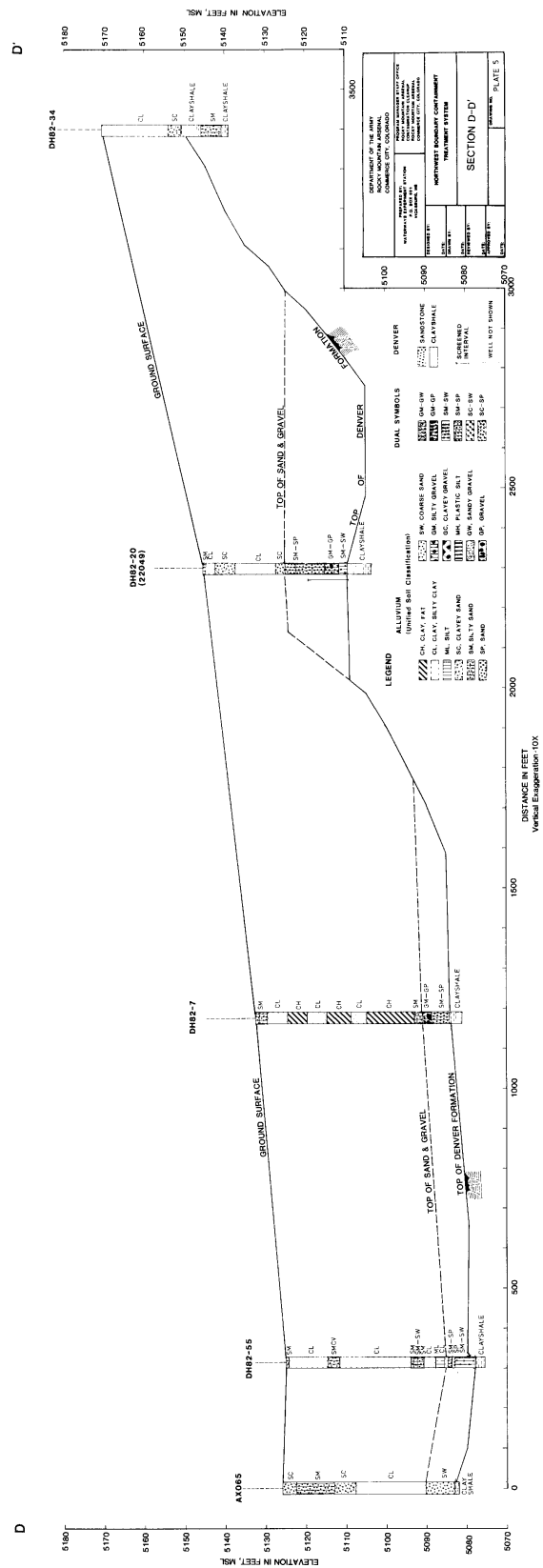
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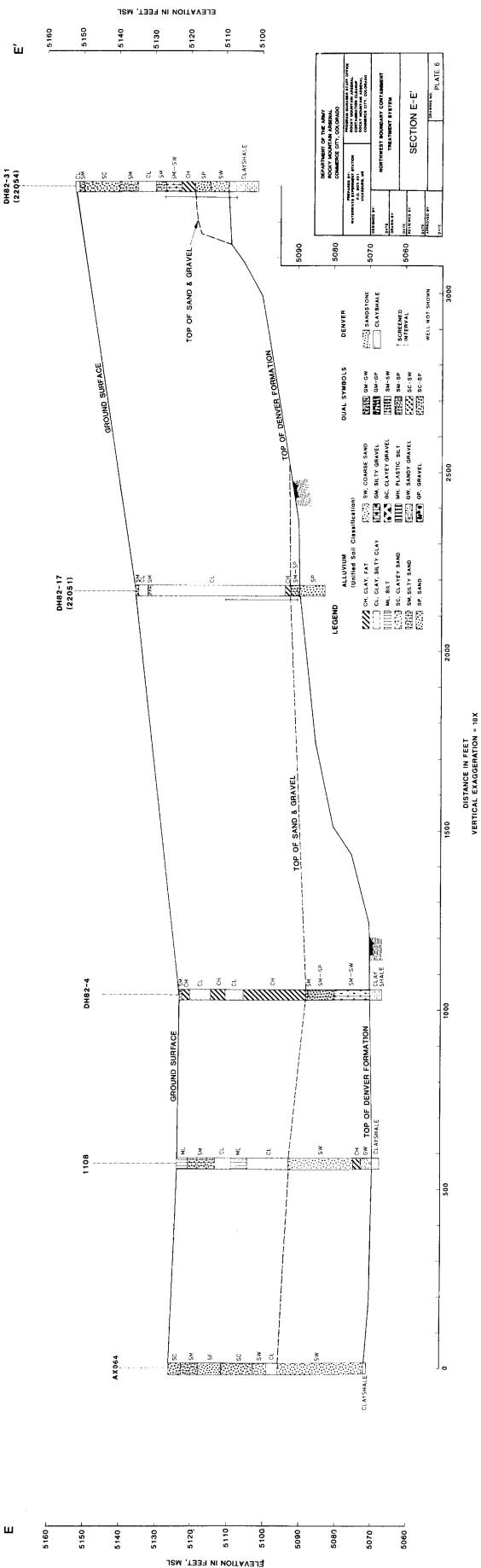


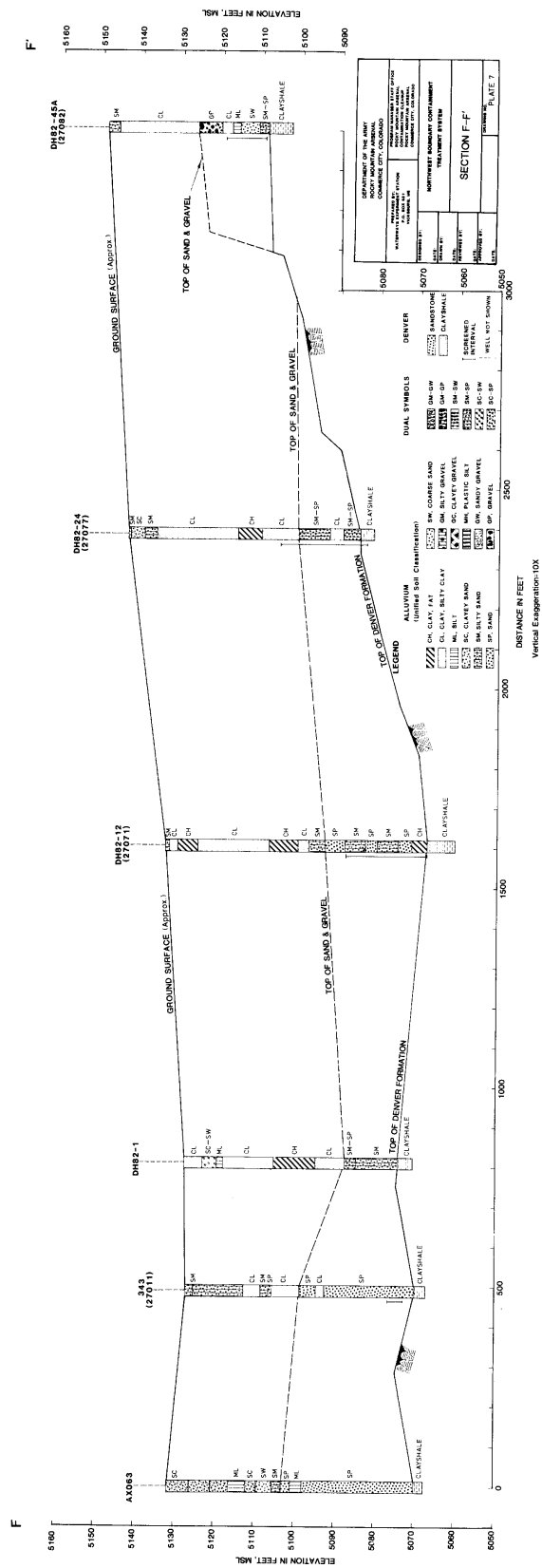


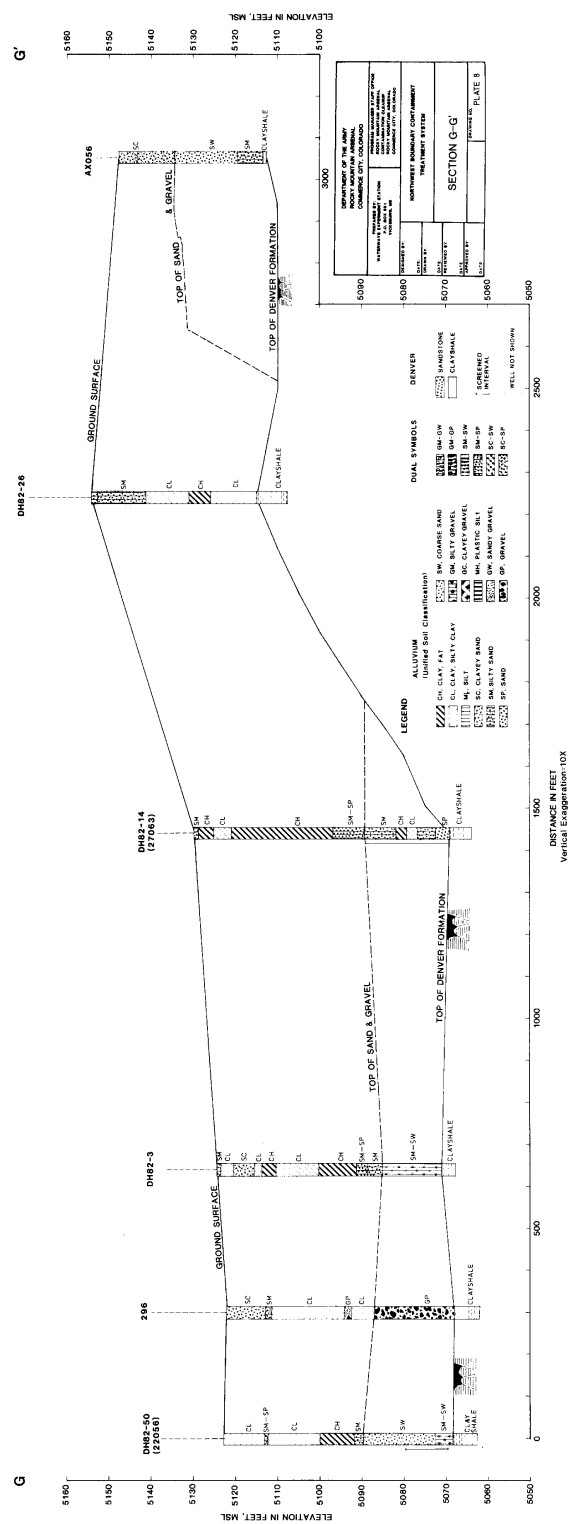




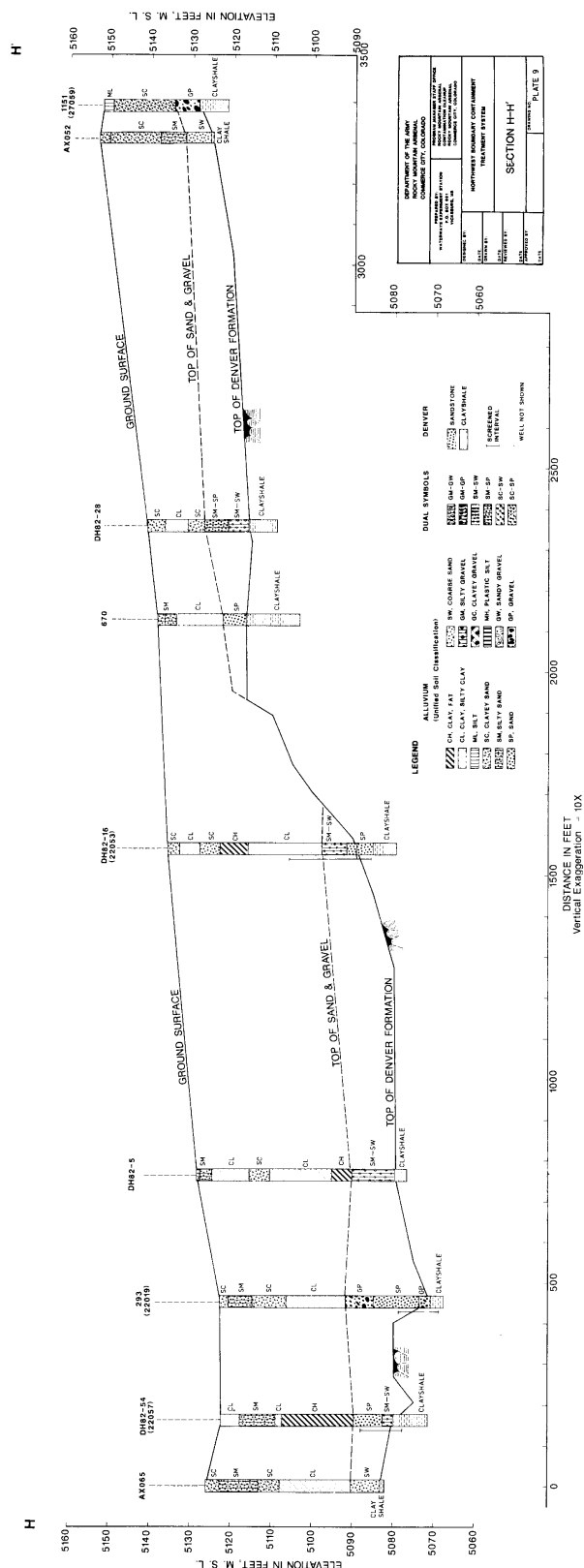


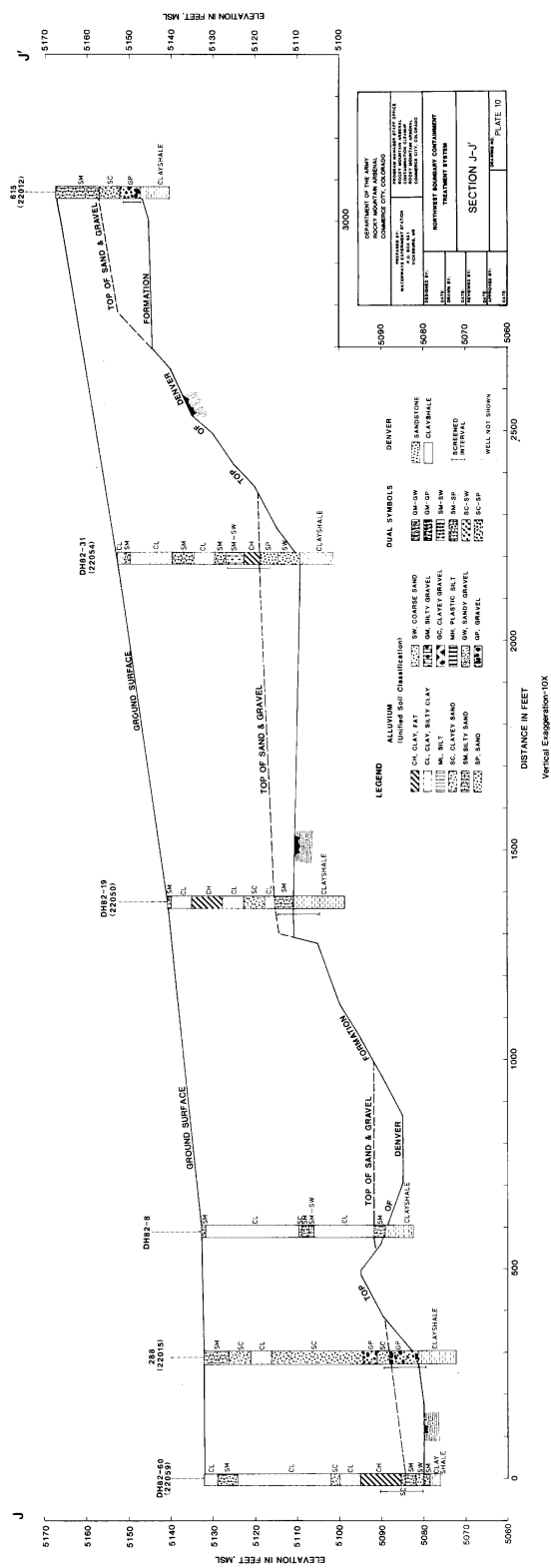


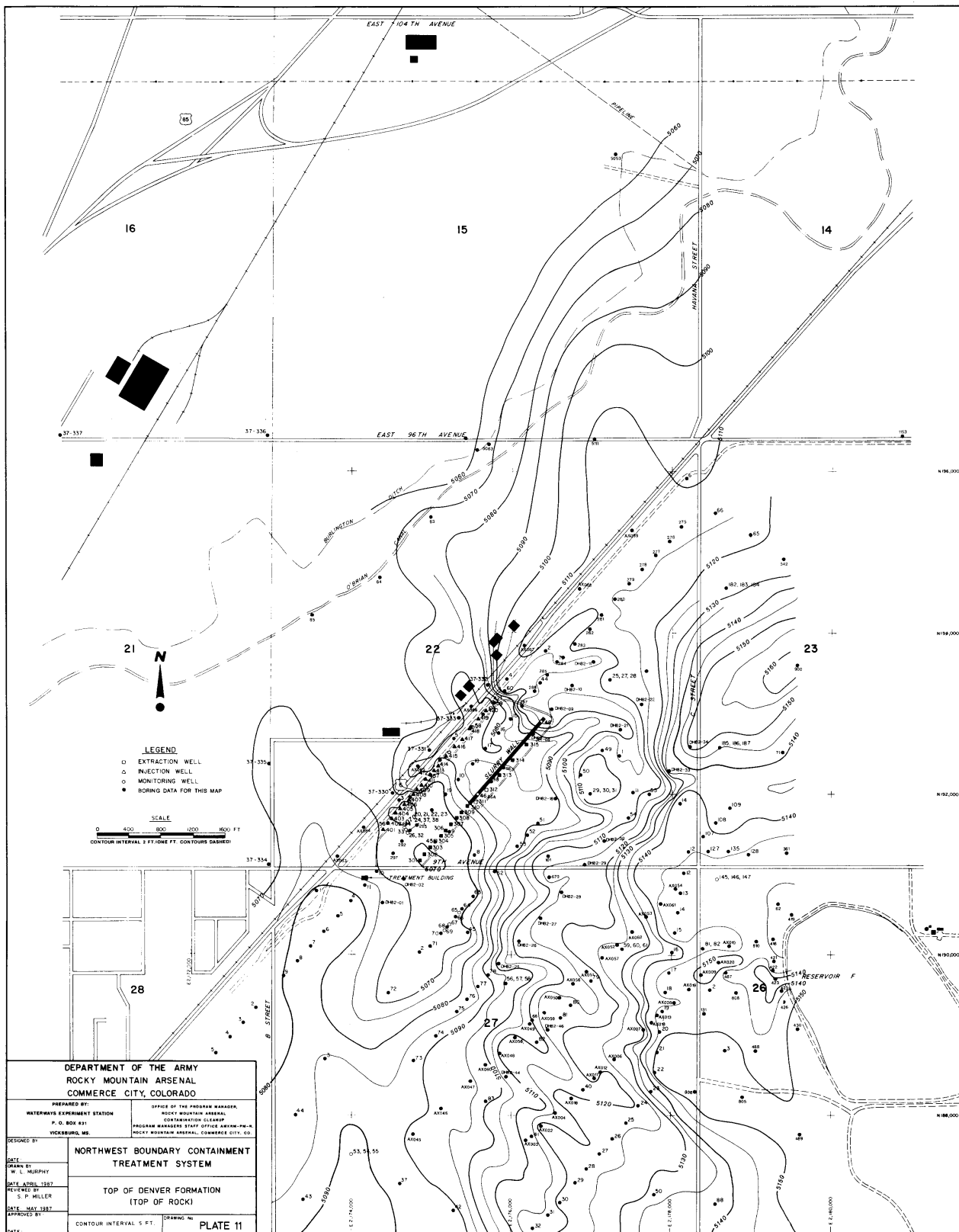


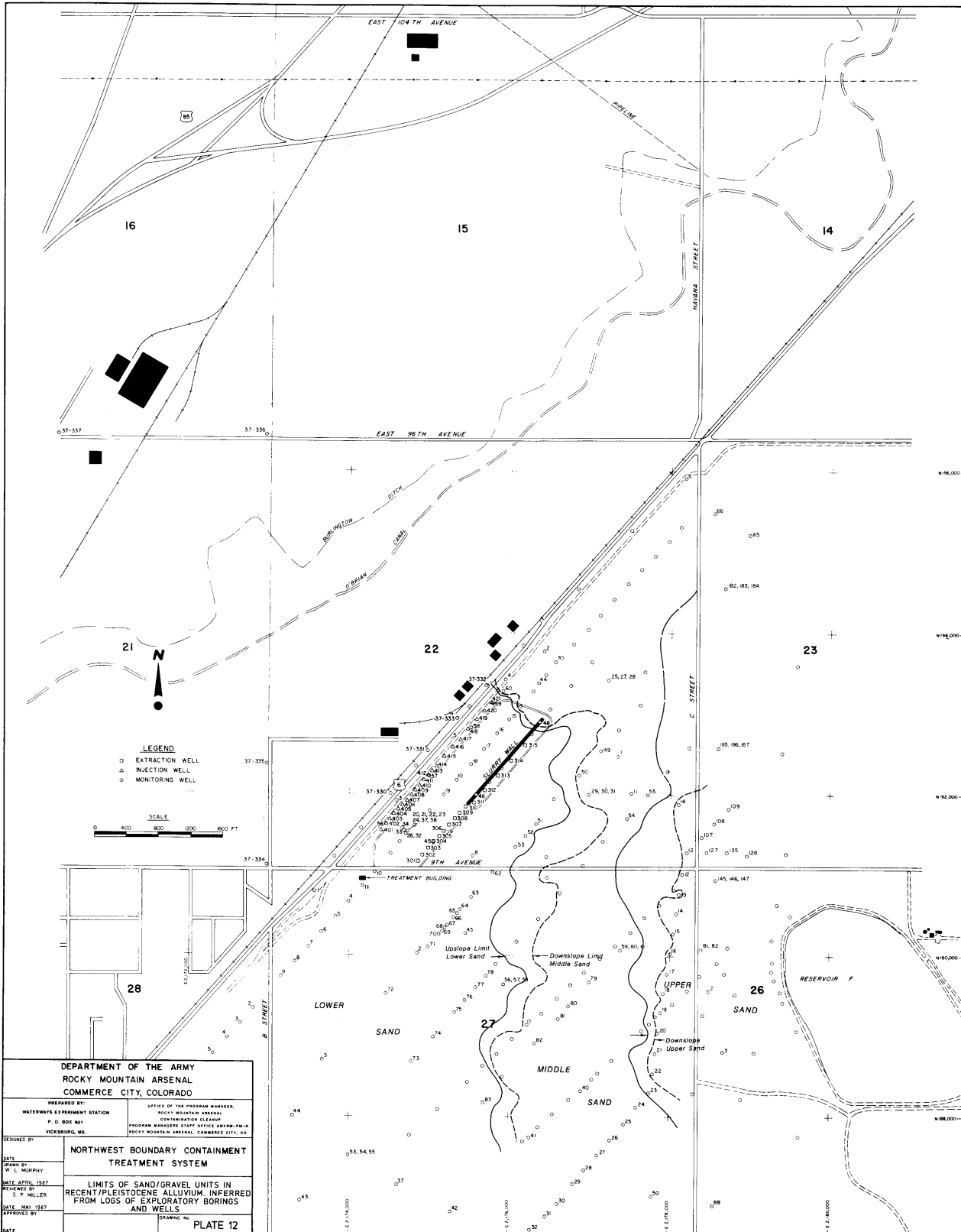


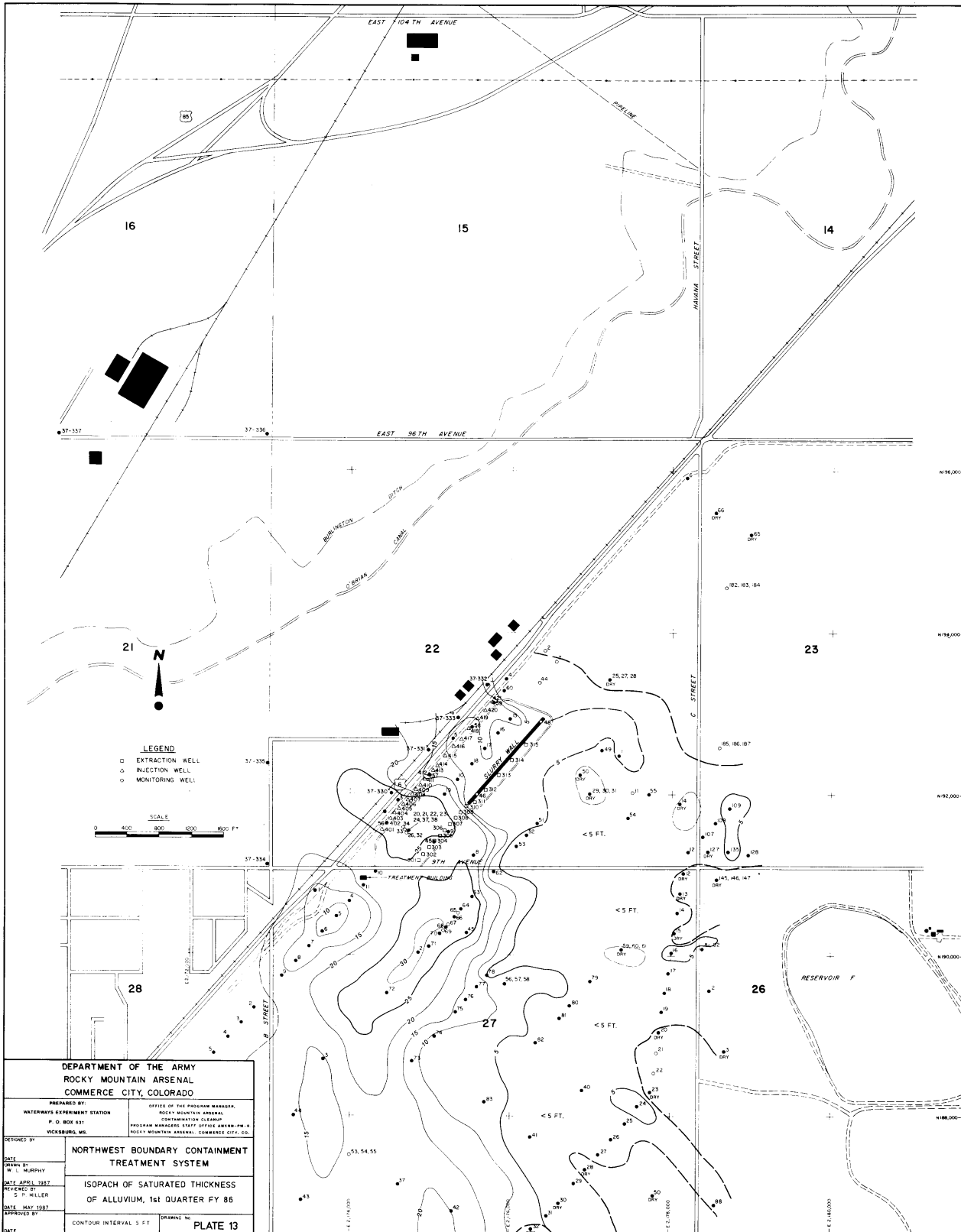
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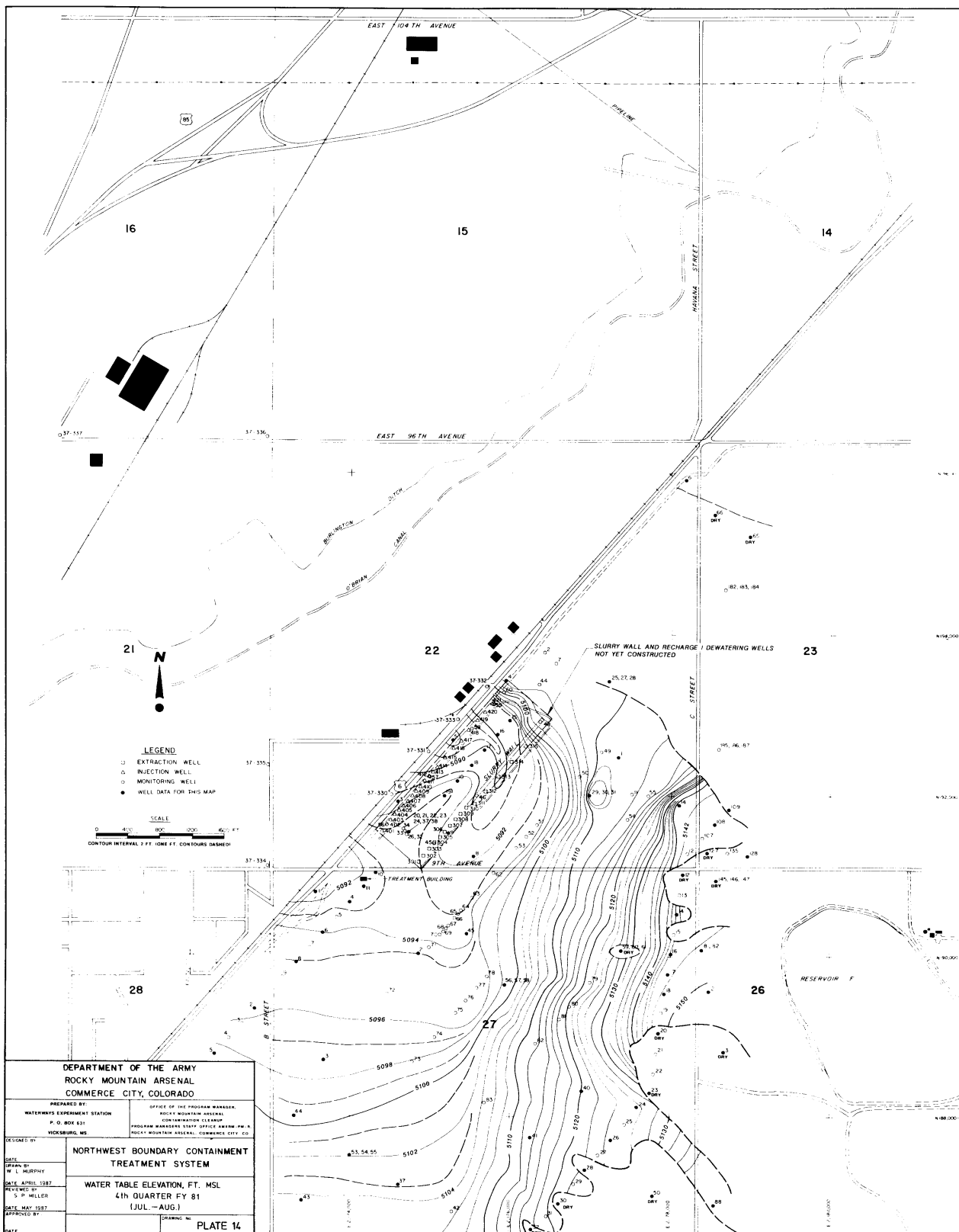


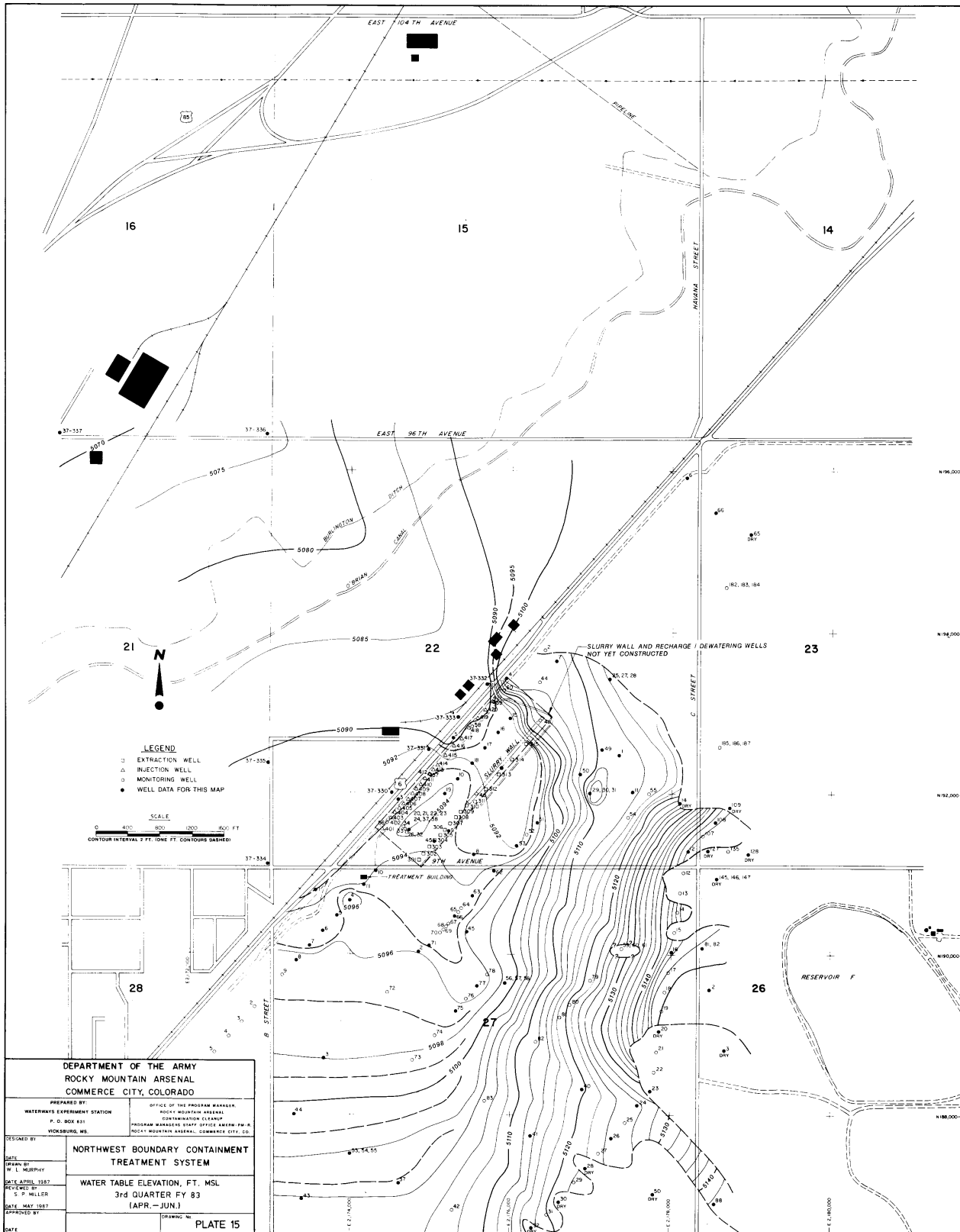


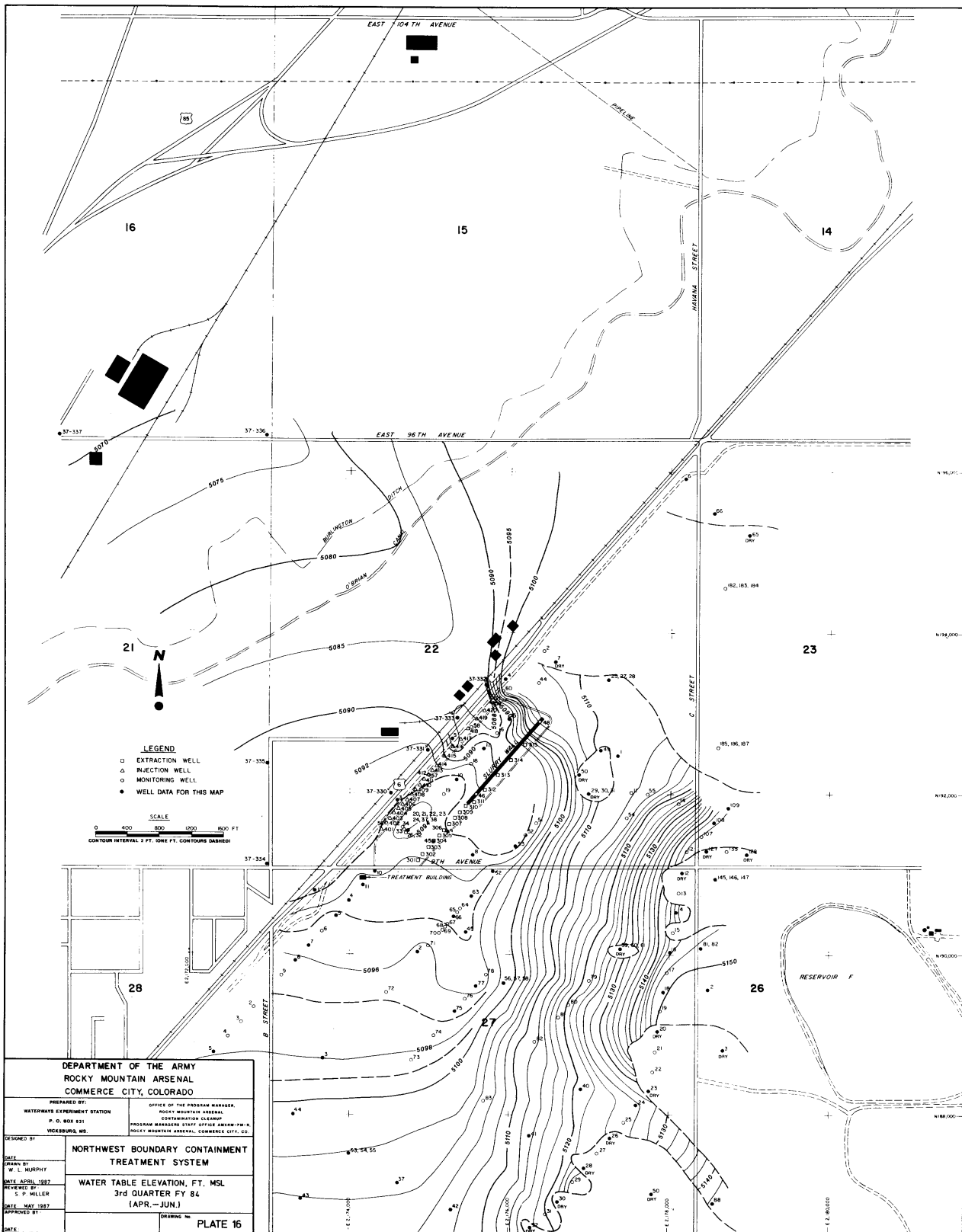


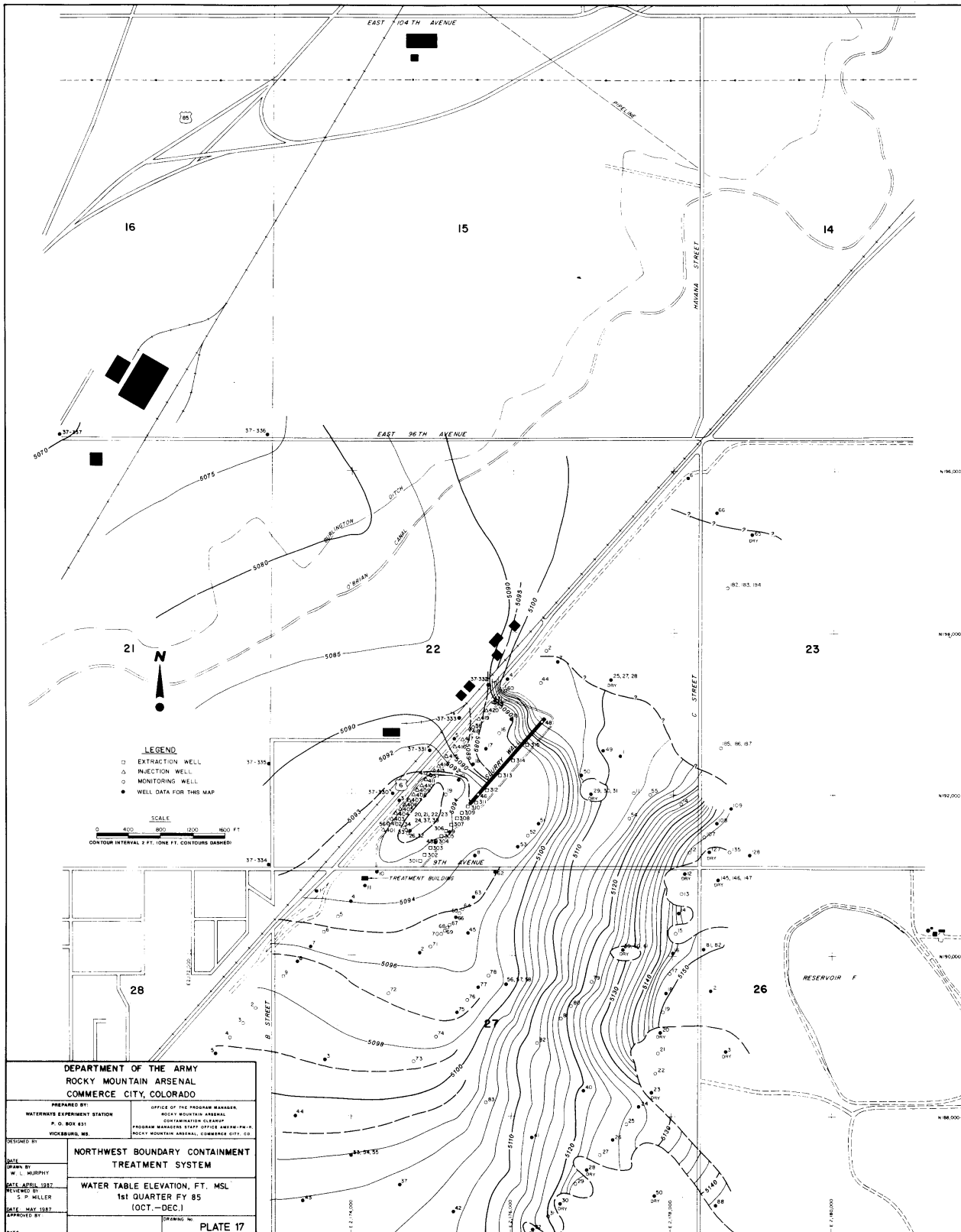


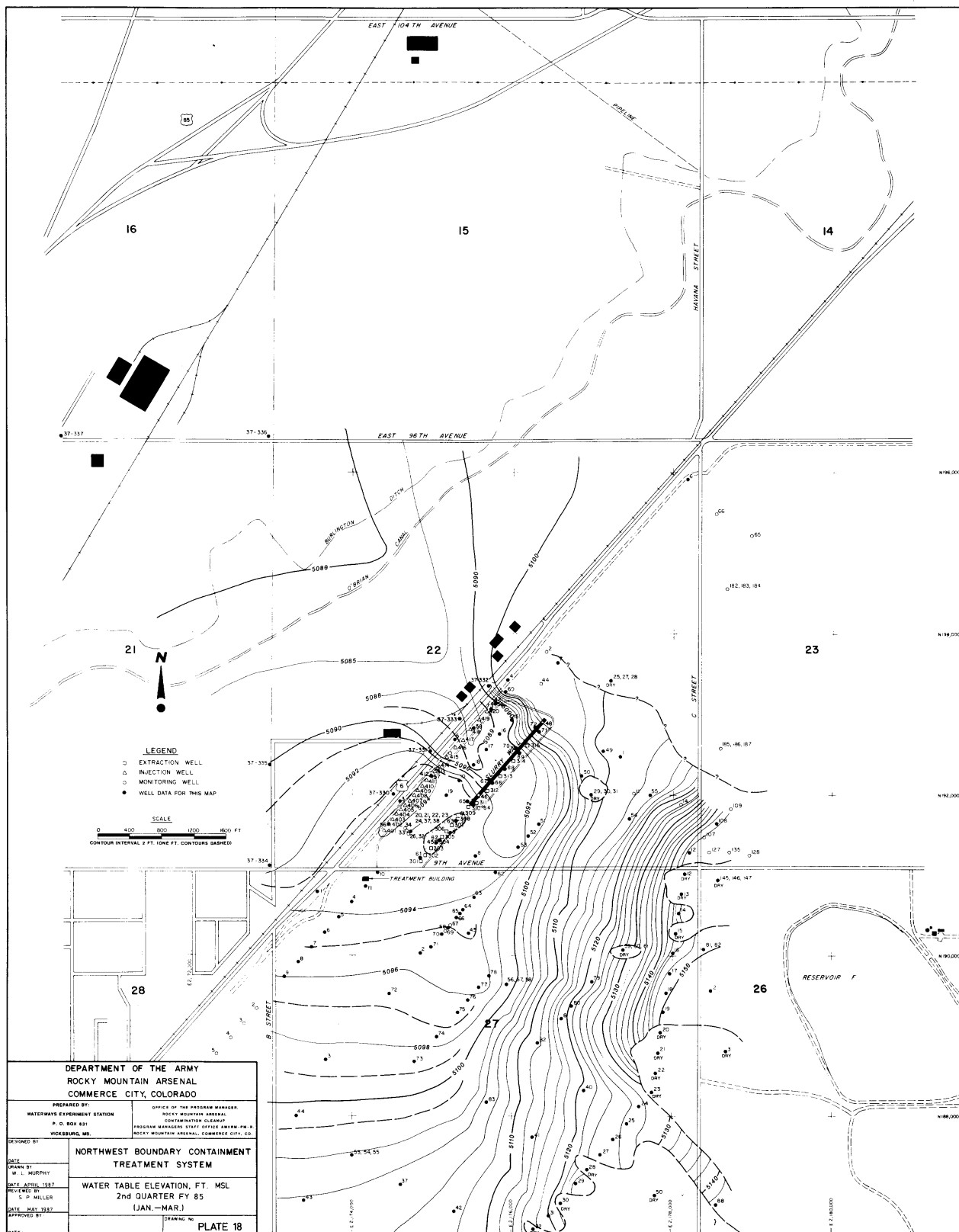
**HYDROLOGY PLATES**  
**14 thru 24**

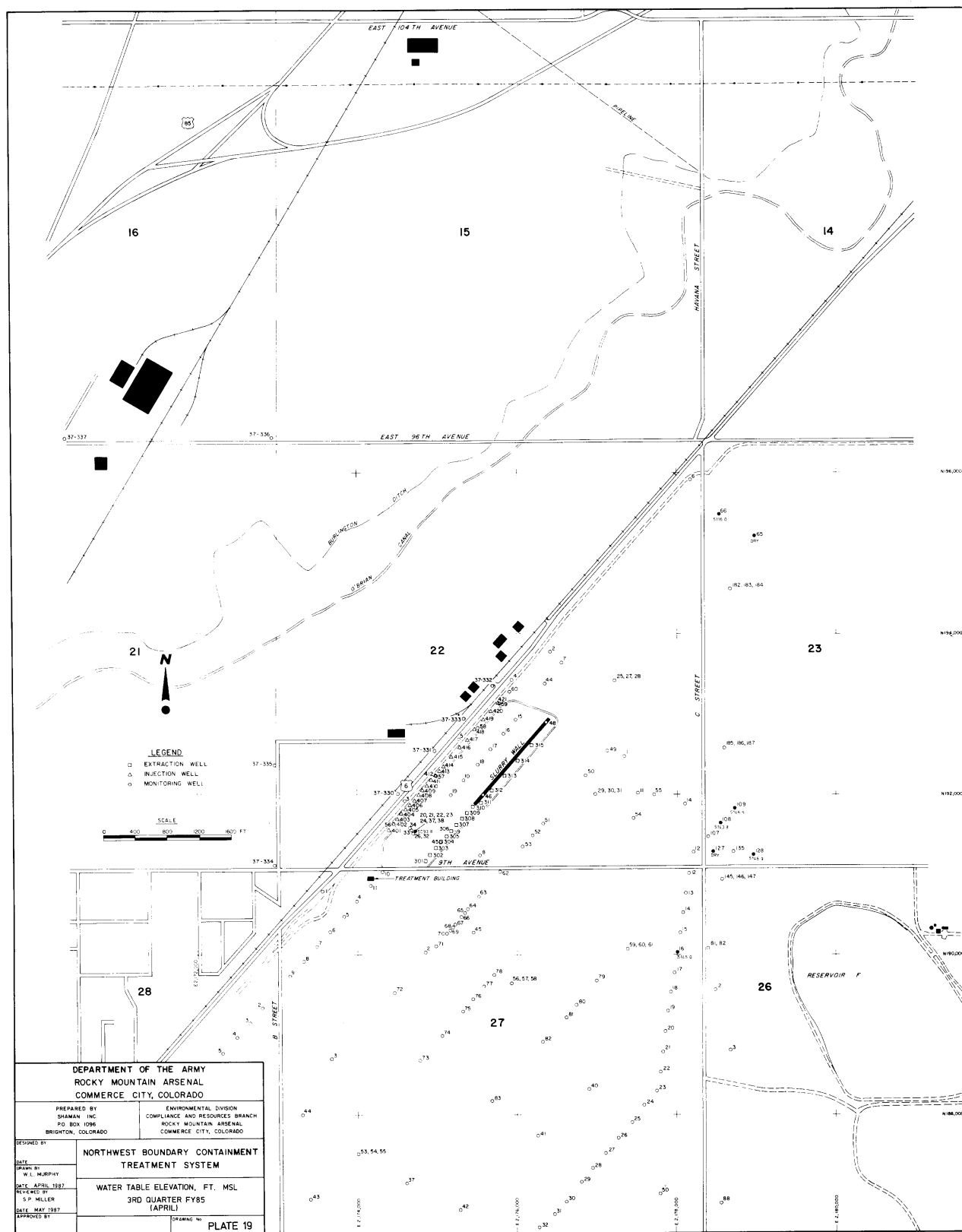


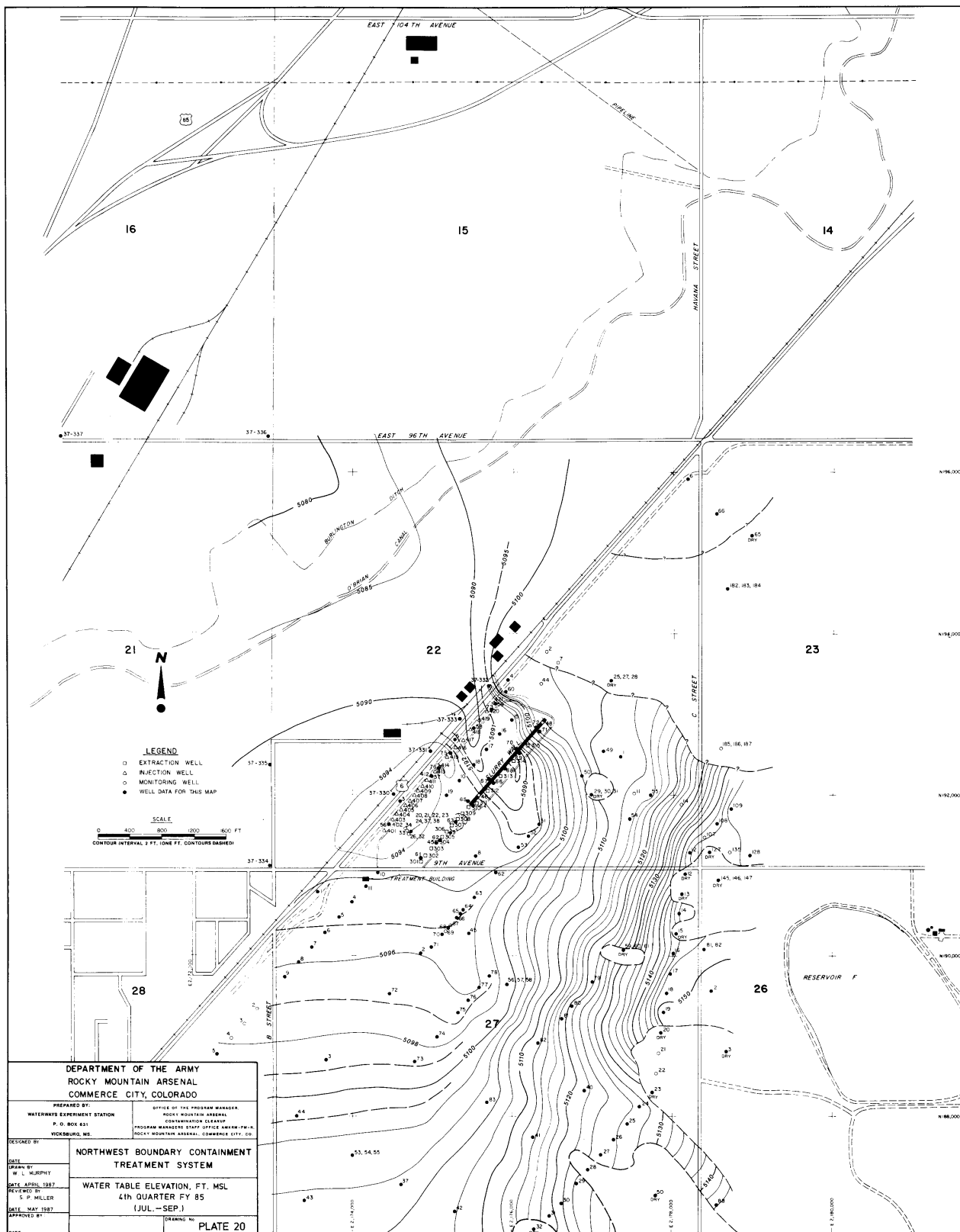




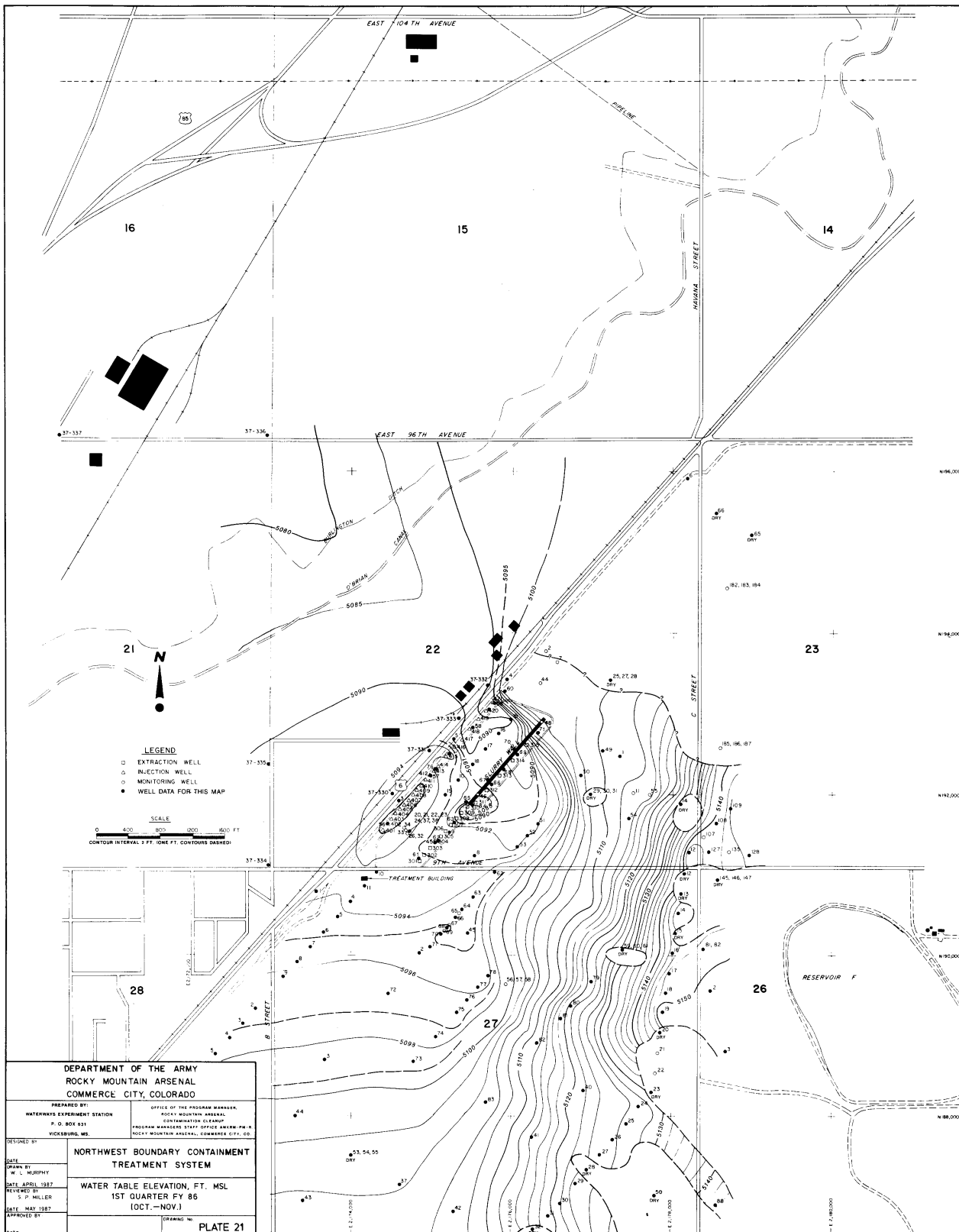


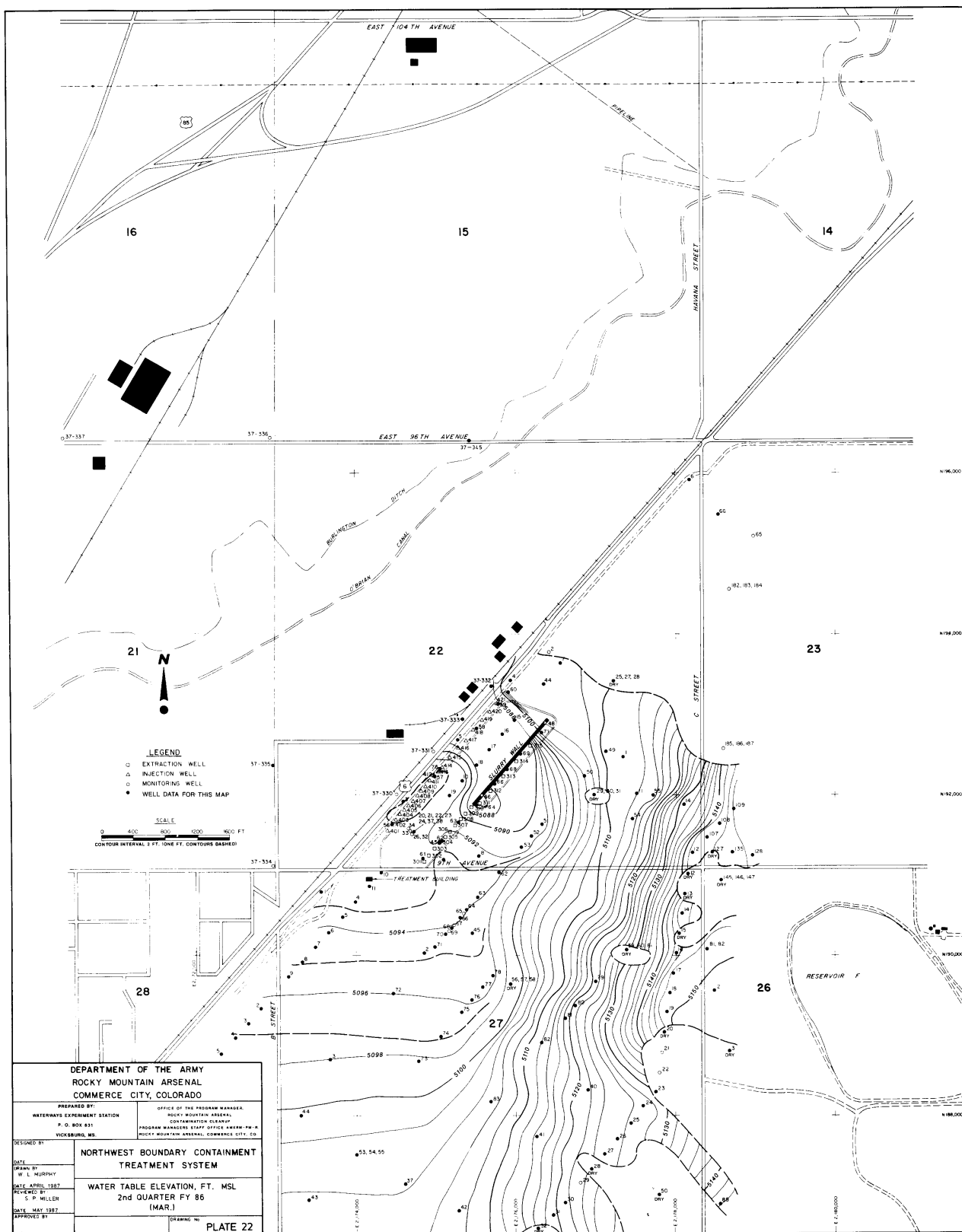


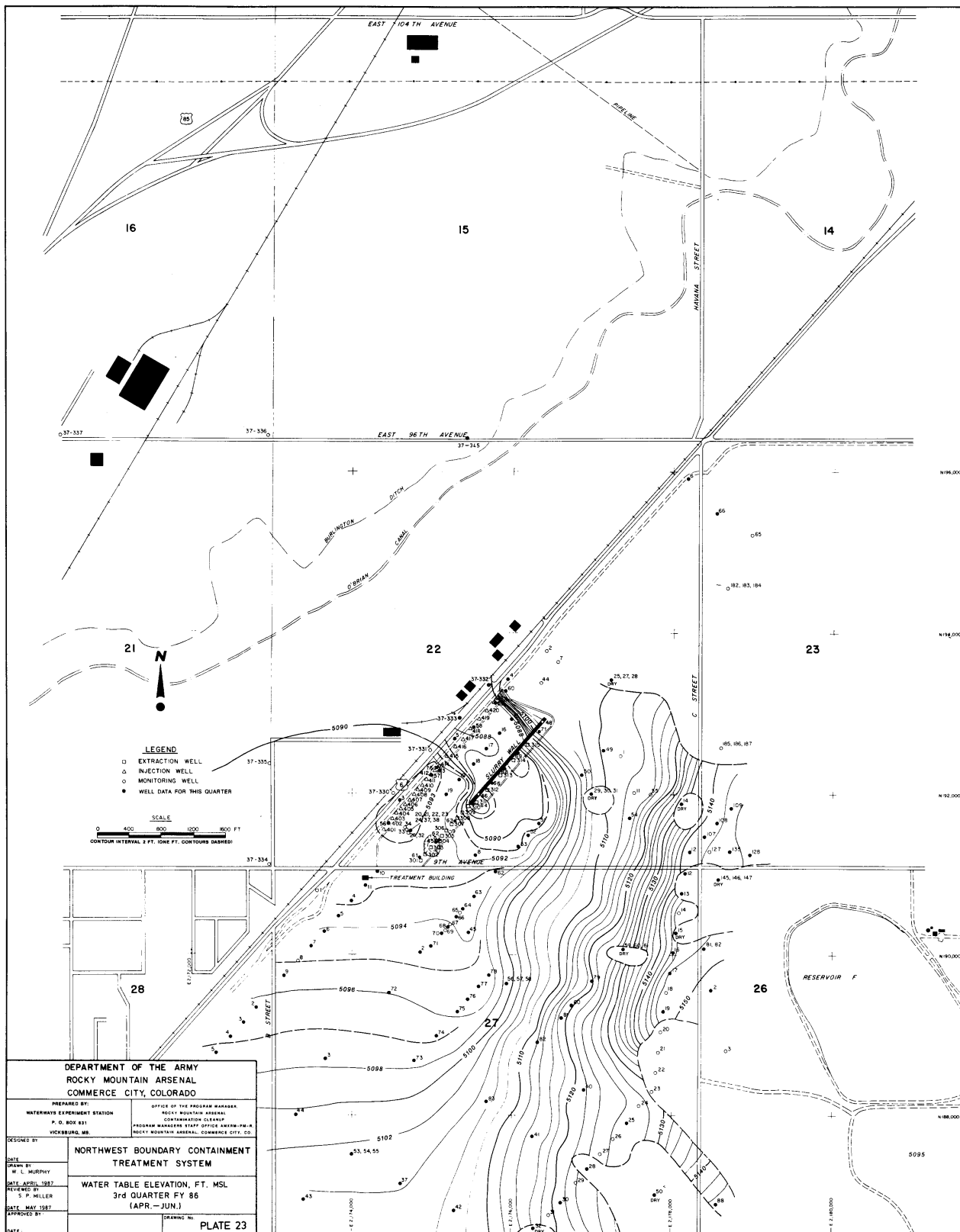


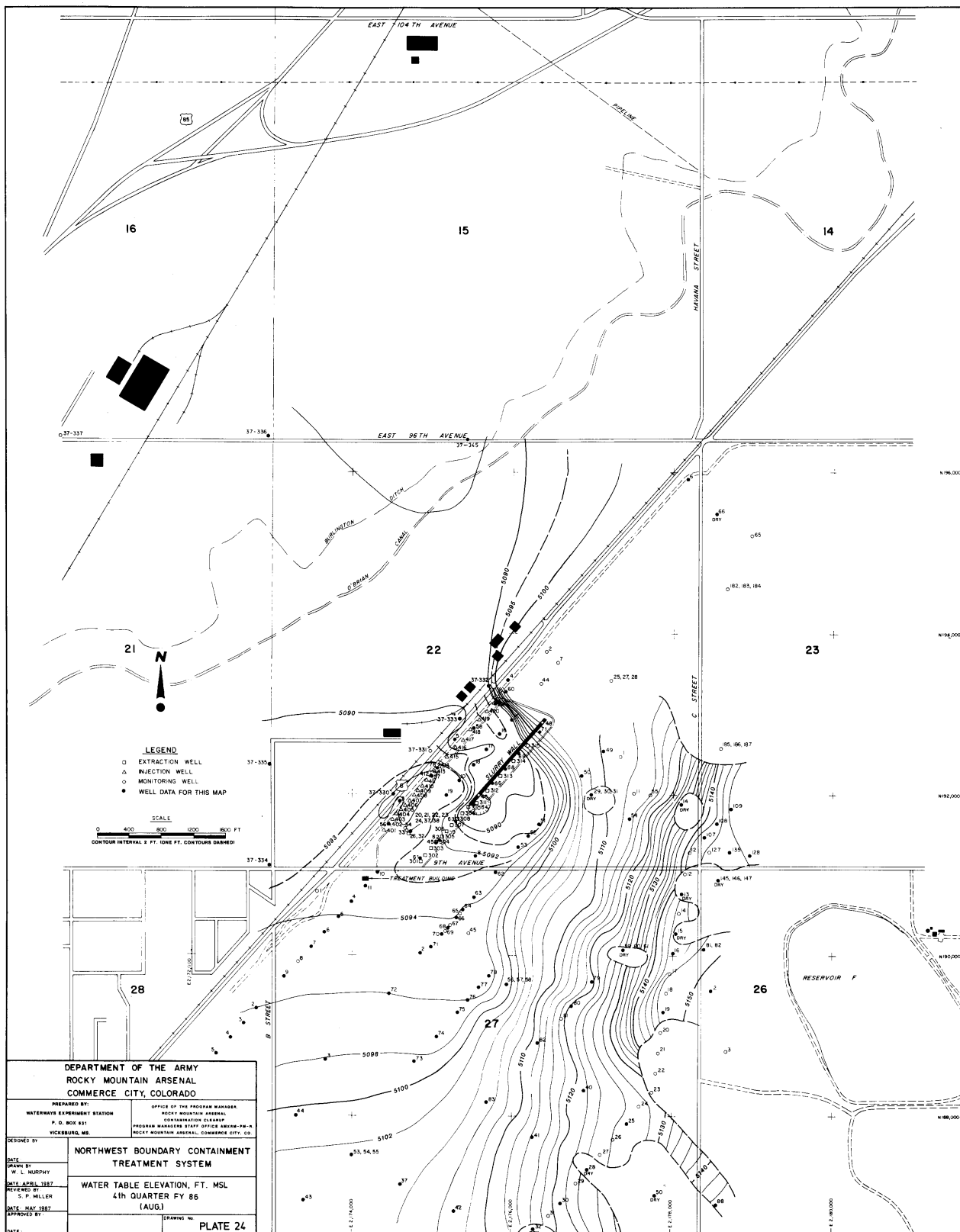






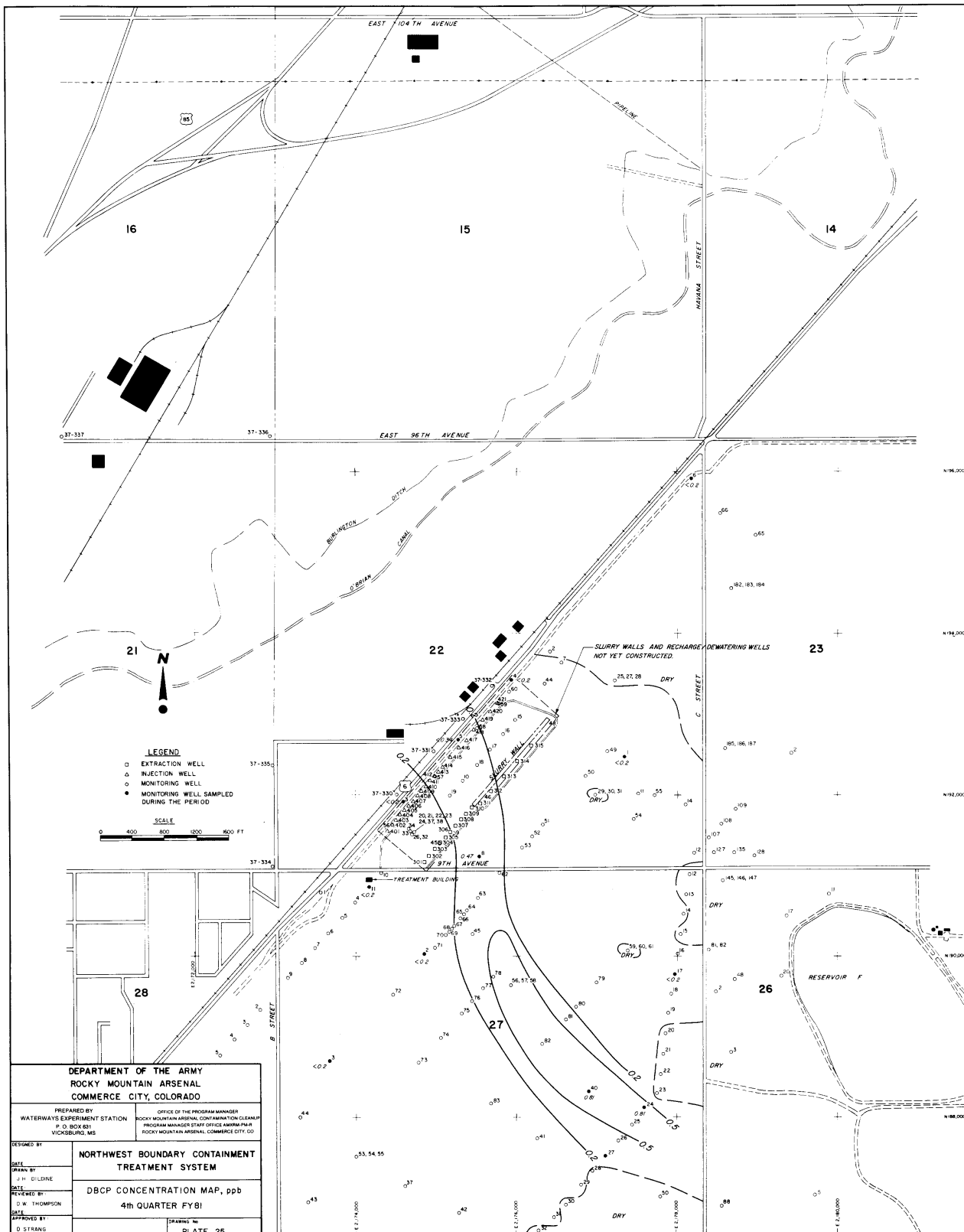


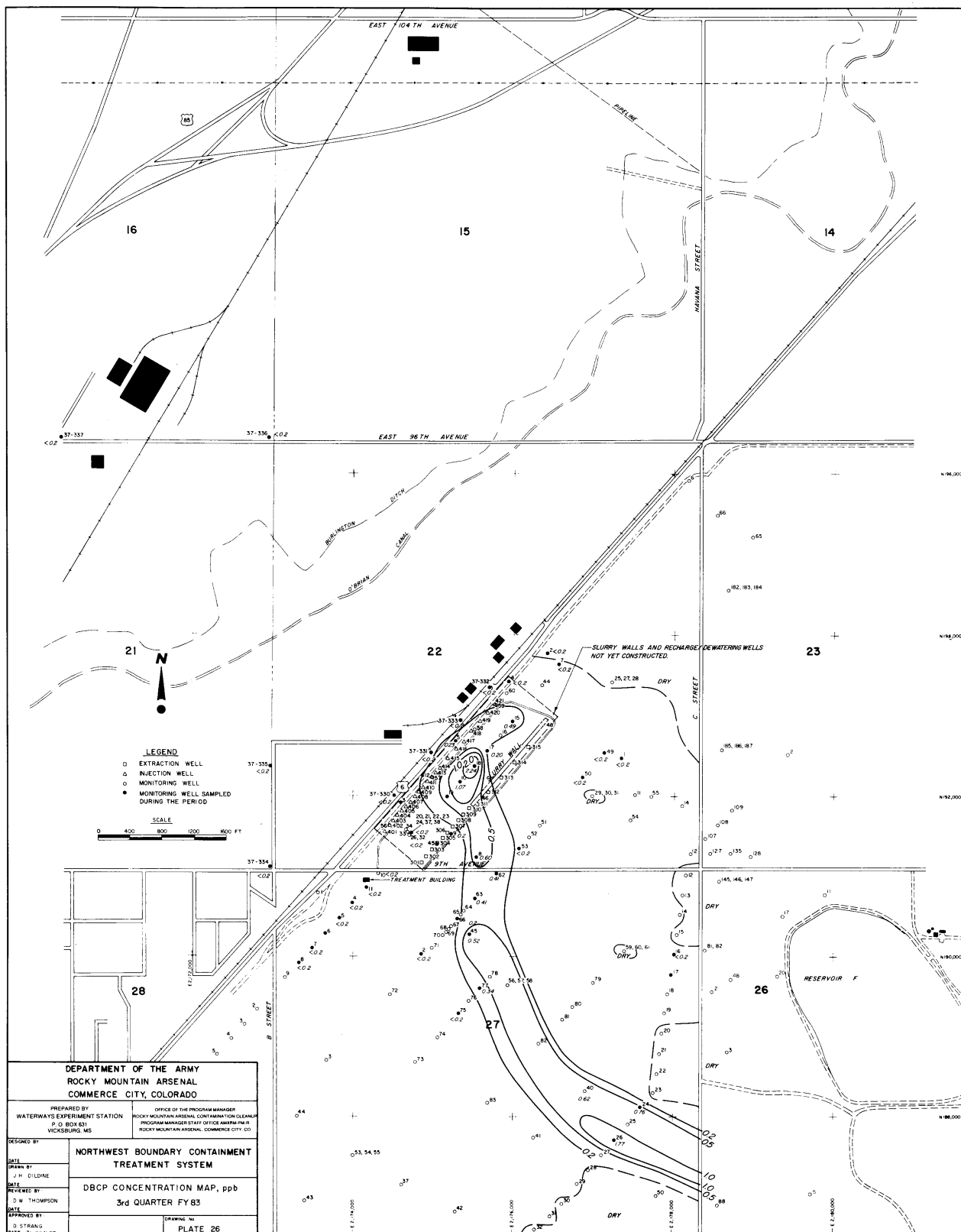




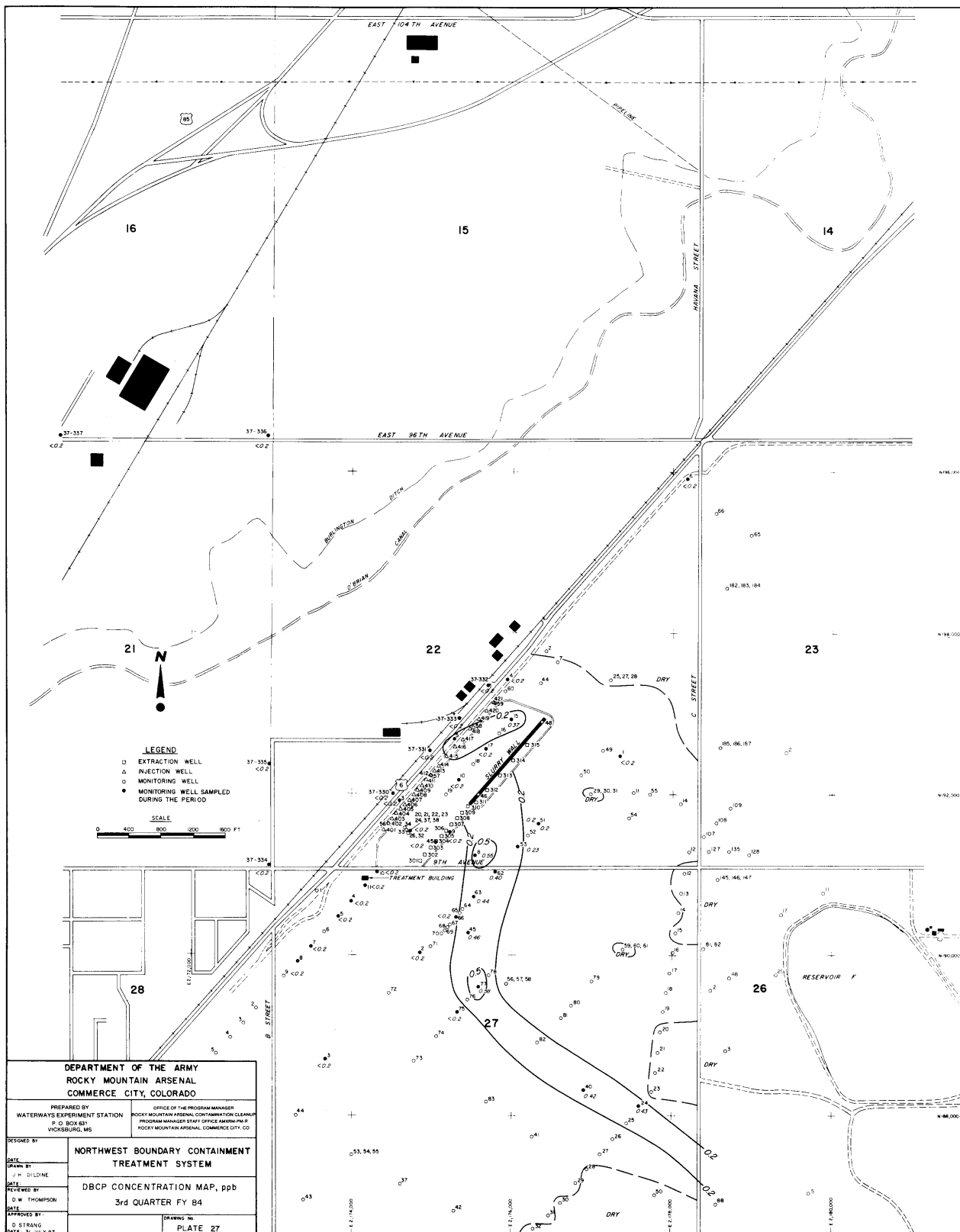
**CONTAMINANT DISTRIBUTION PLATES**

**25 thru 76**

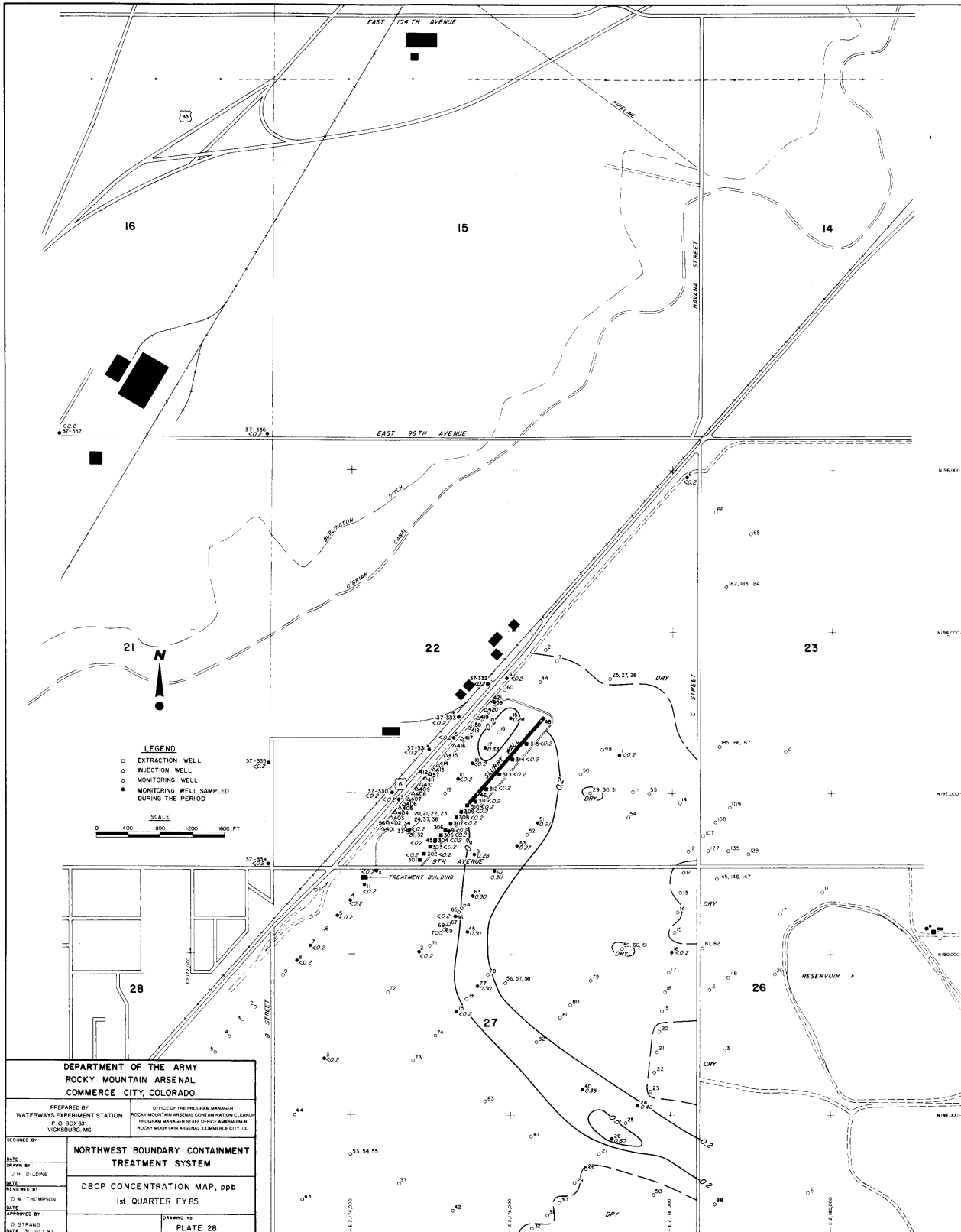


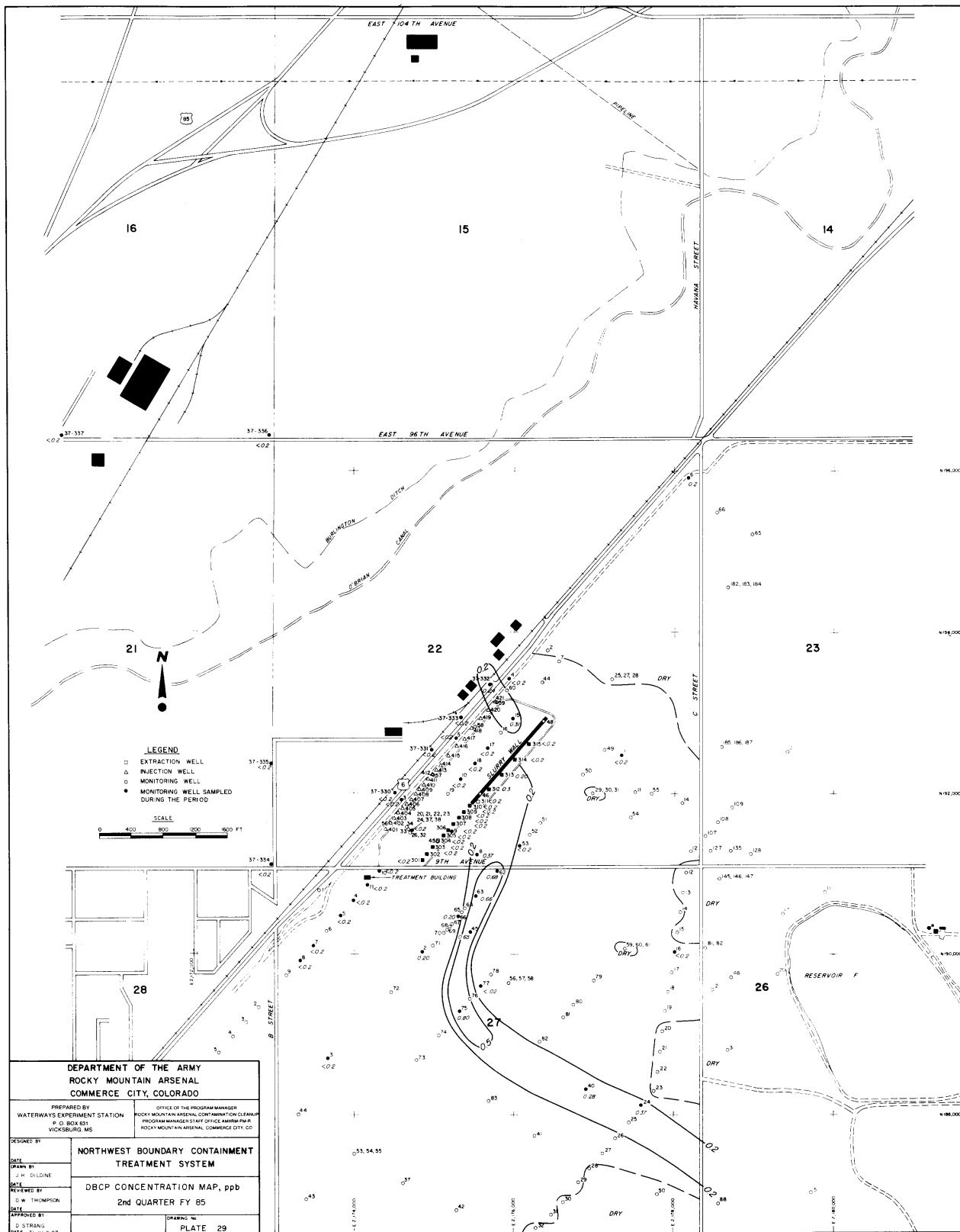


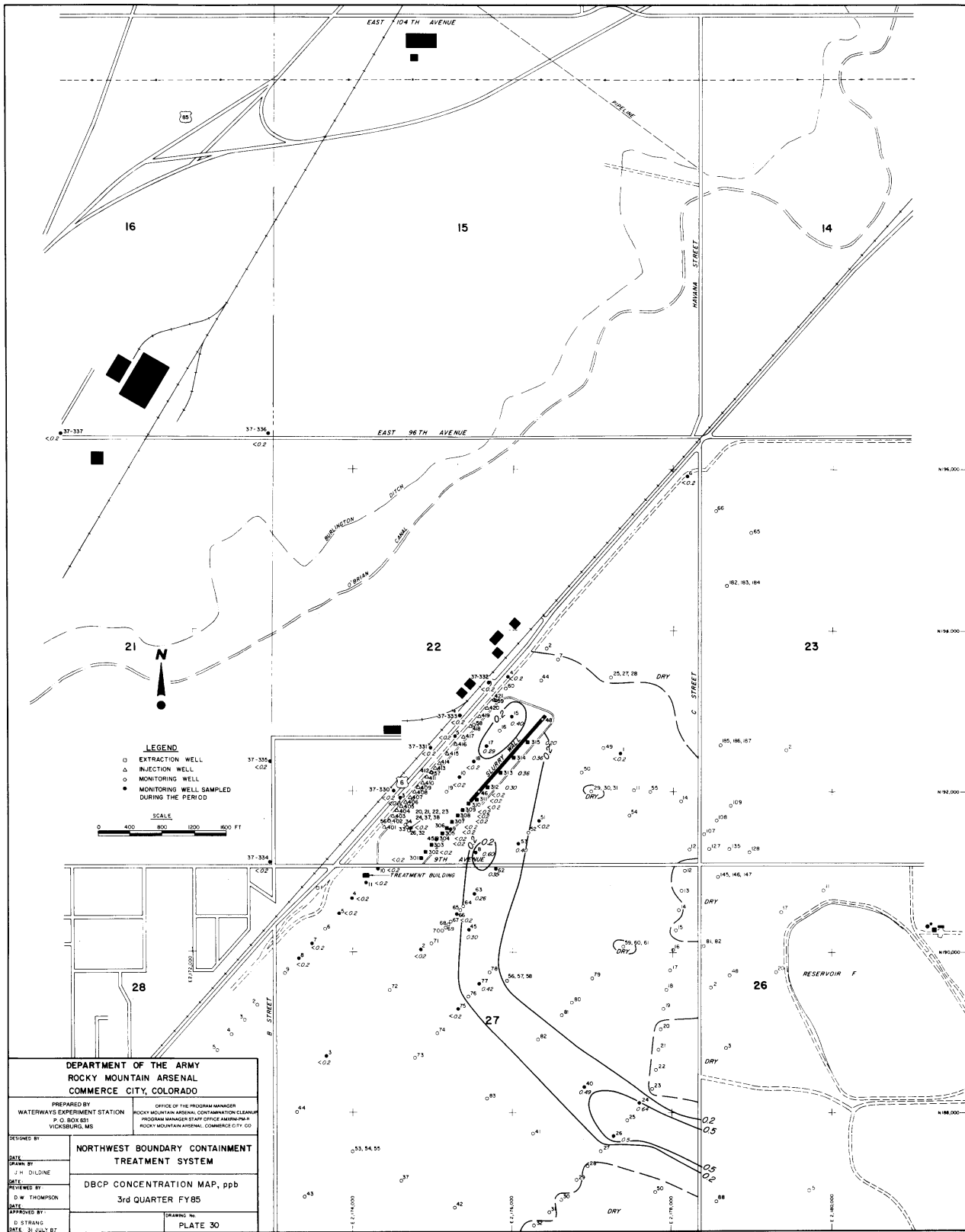
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| DEPARTMENT OF THE ARMY<br>ROCKY MOUNTAIN ARSENAL<br>COMMERCE CITY, COLORADO  |   |
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| DESIGNED BY<br>DATE<br>DRAWN BY<br>J. M. D'ELIA<br>DATE<br>REVIEWED BY<br>D. N. THOMPSON<br>DATE<br>APPROVED BY<br>D. STRANG<br>DATE 3-26-87 | <b>NORTHWEST BOUNDARY CONTAINMENT<br/>TREATMENT SYSTEM</b><br><br>DBCP CONCENTRATION MAP, ppb<br>3rd QUARTER FY83<br><br>DRAWING NO.<br><b>PLATE 26</b>               |

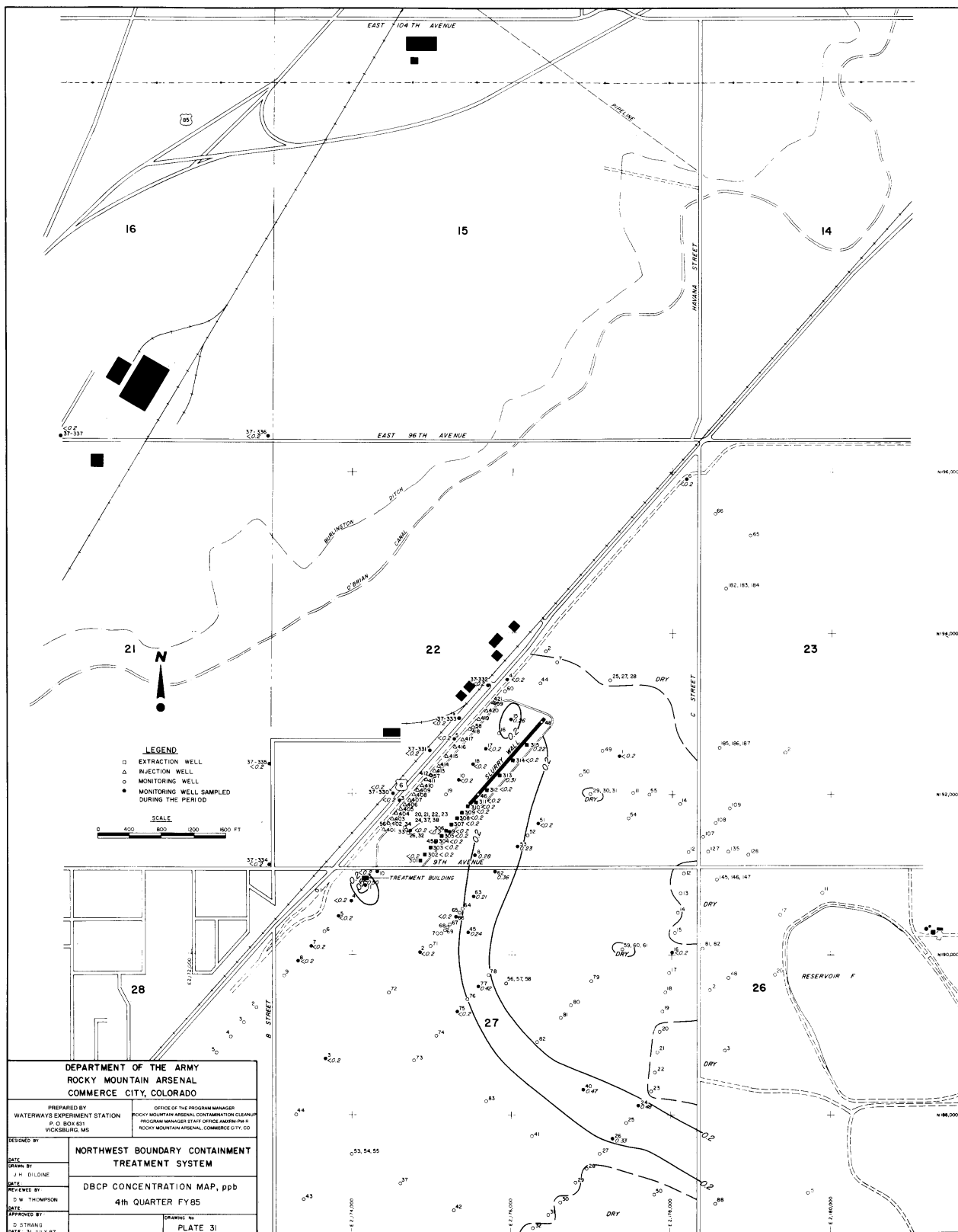




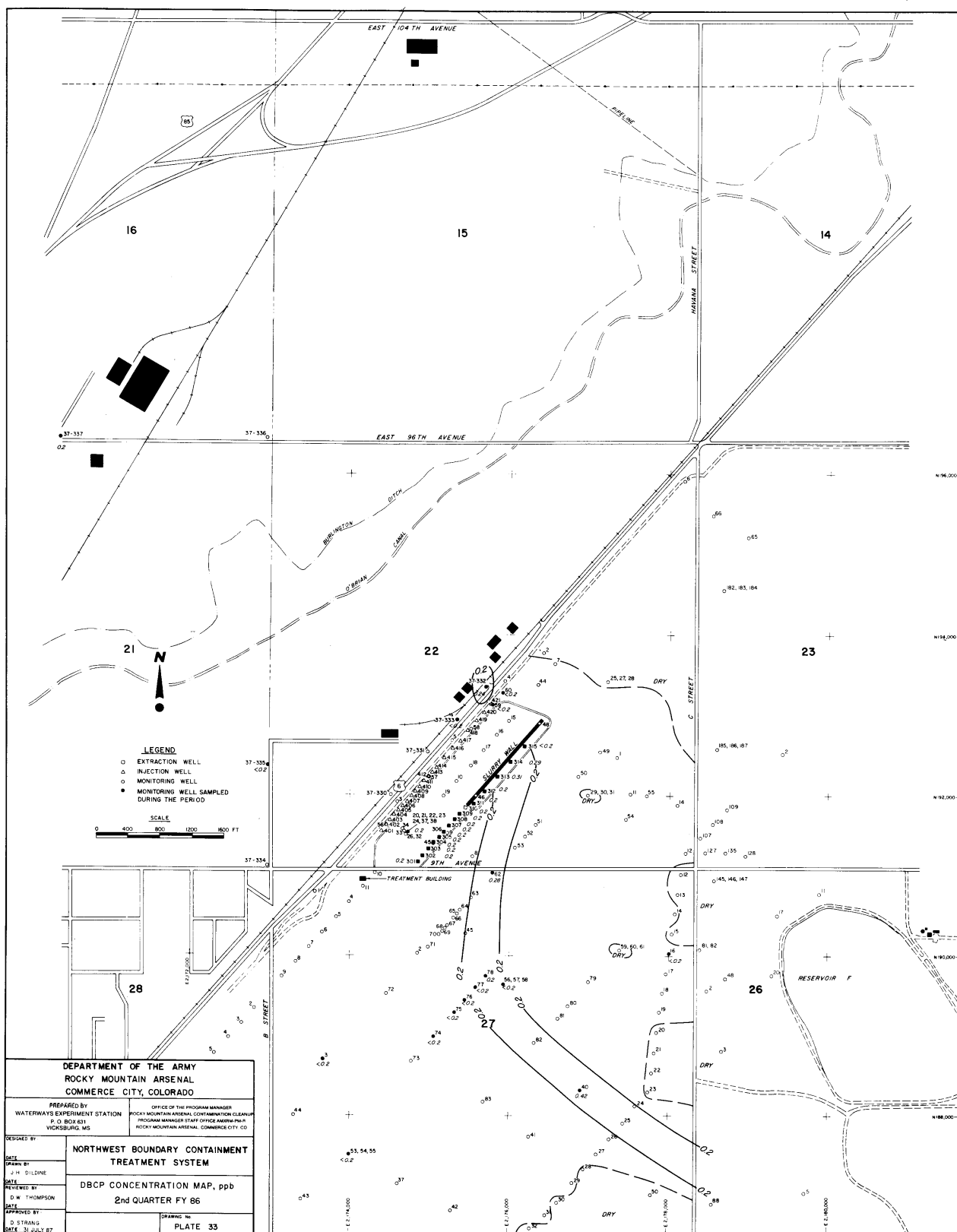


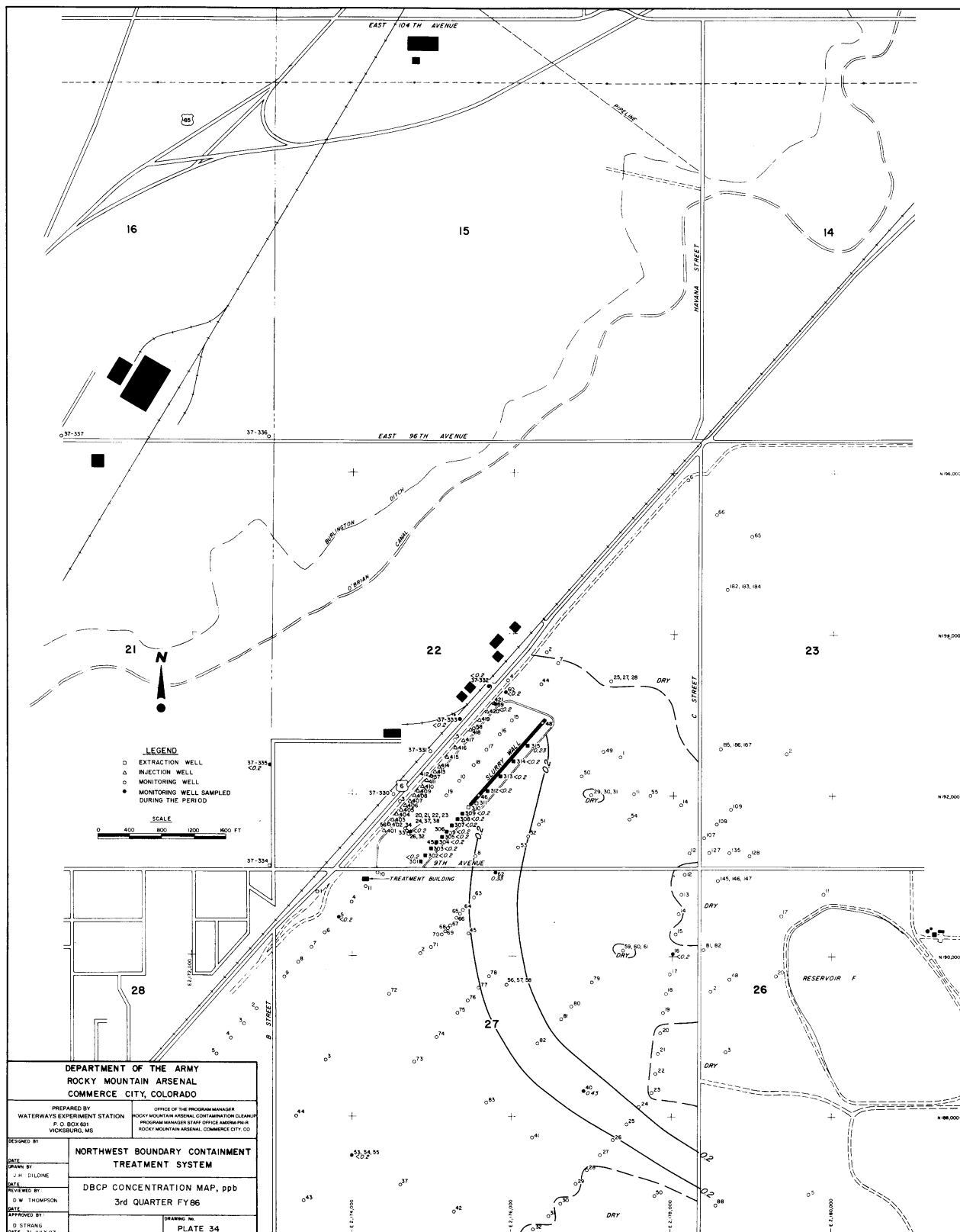


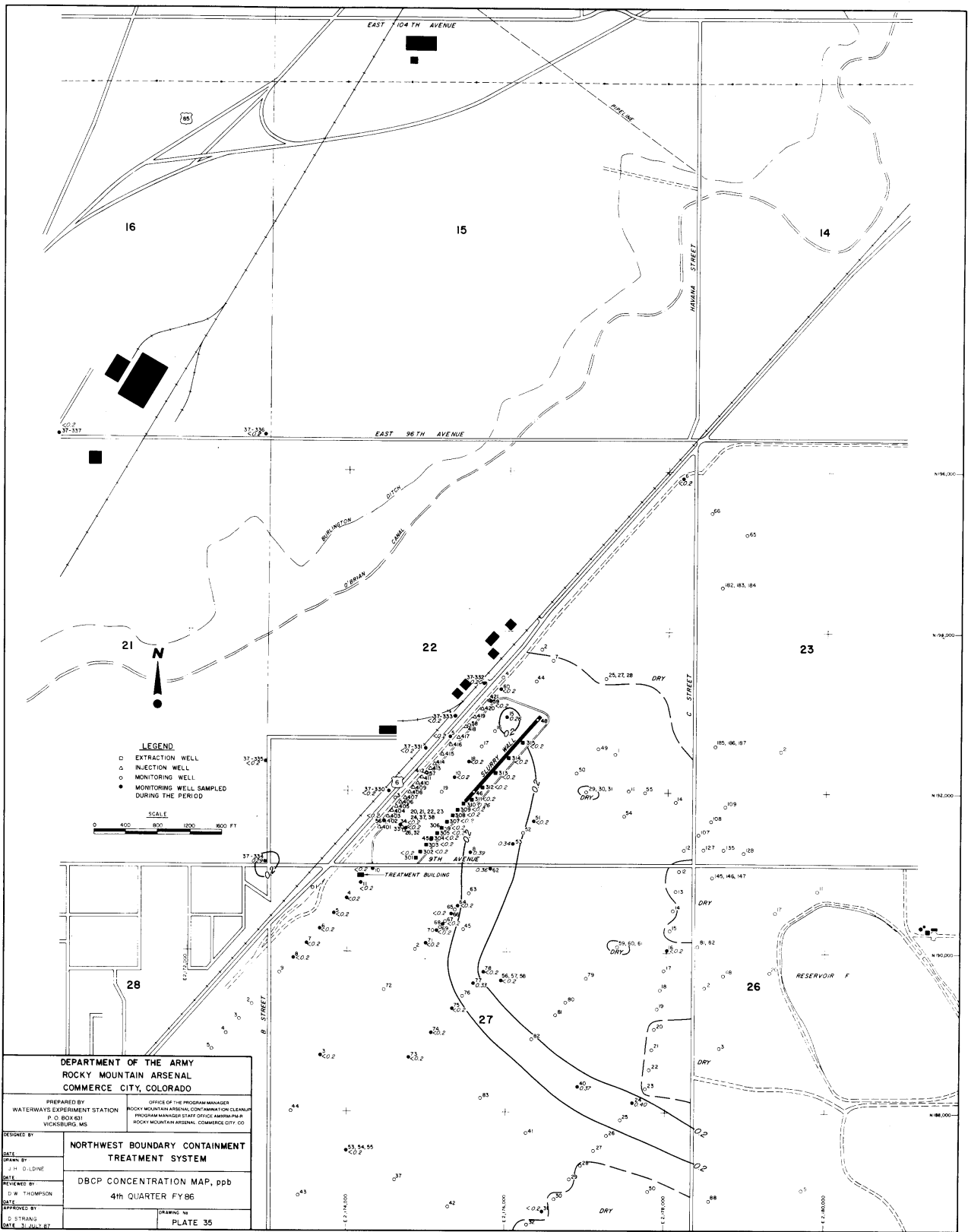




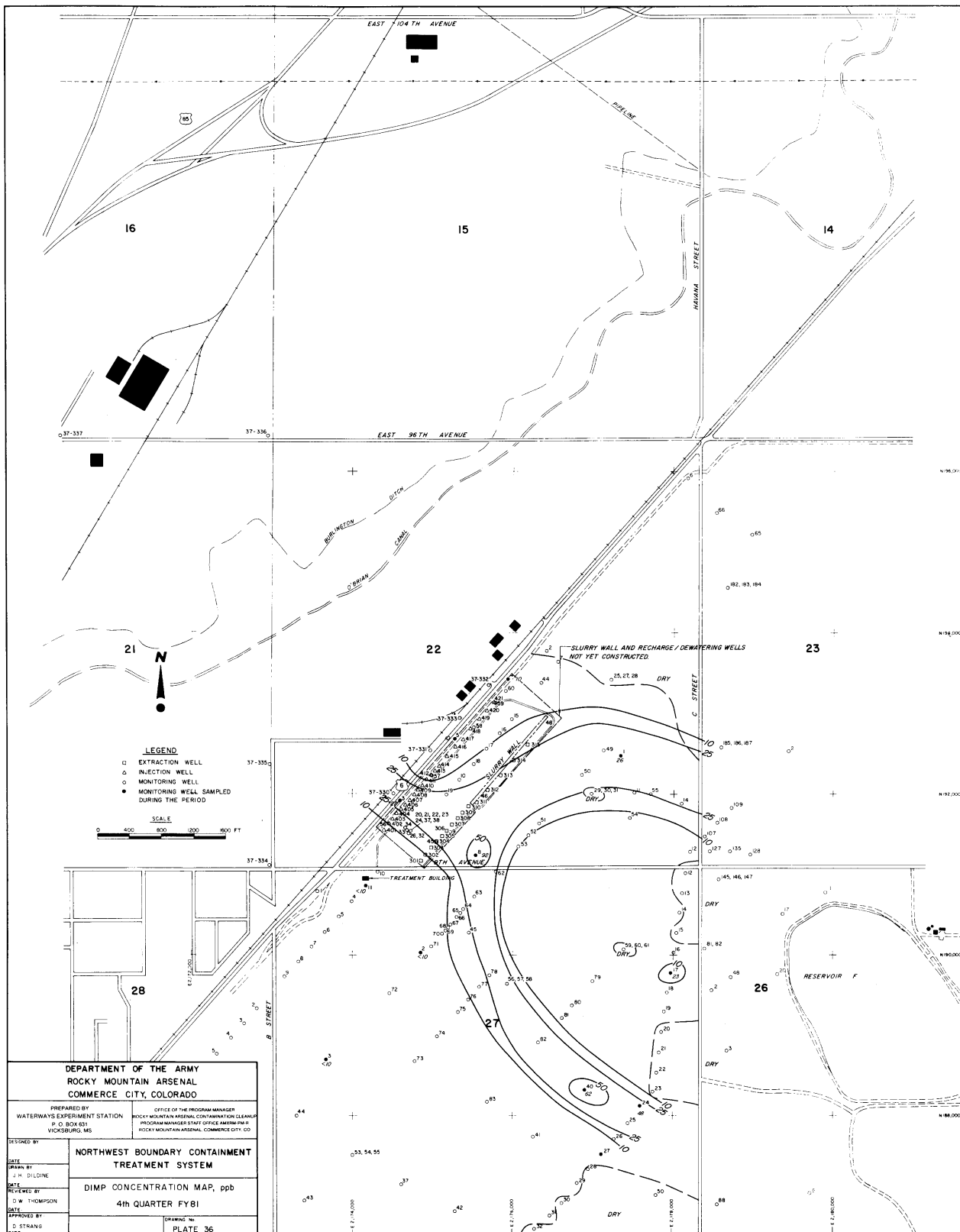




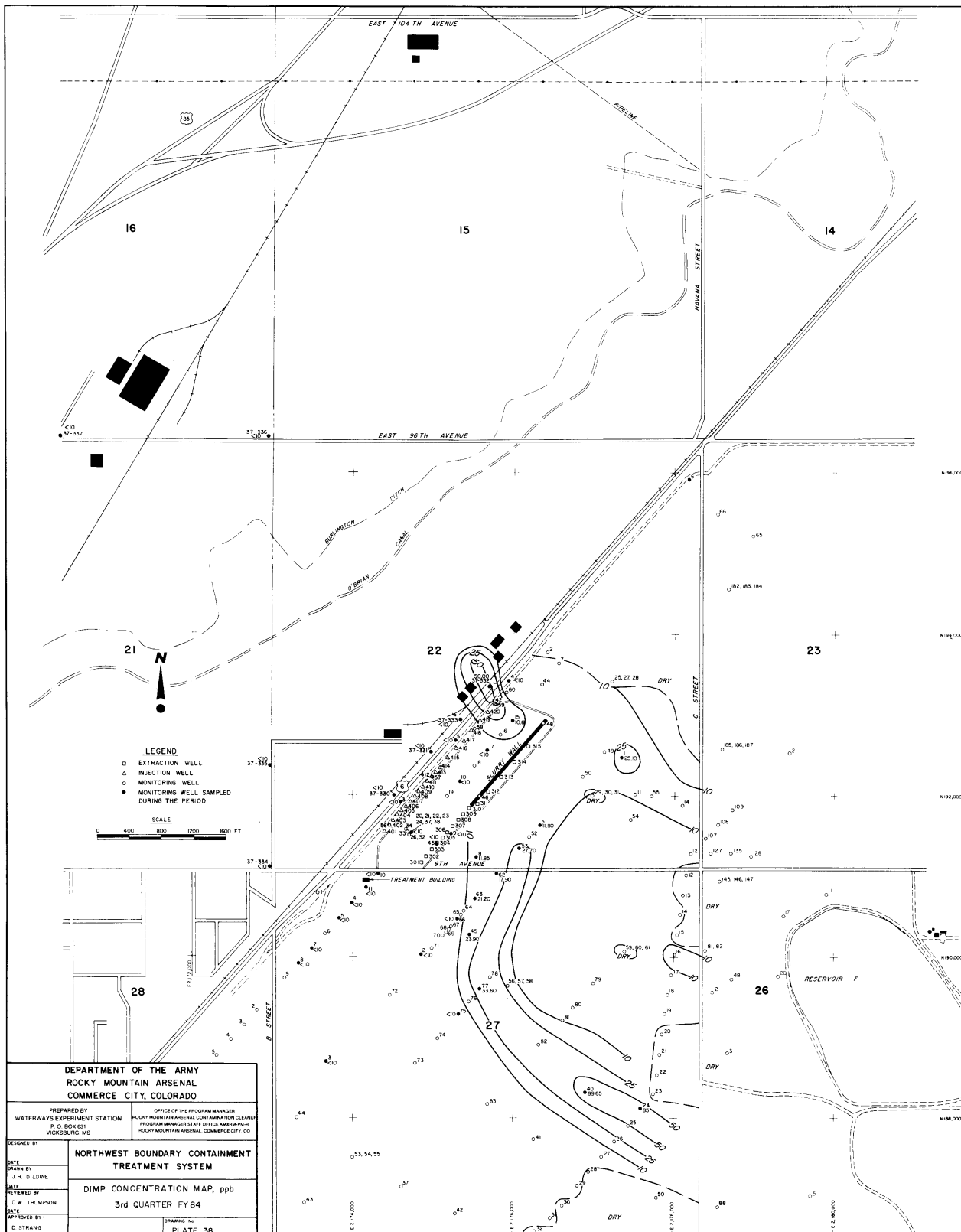


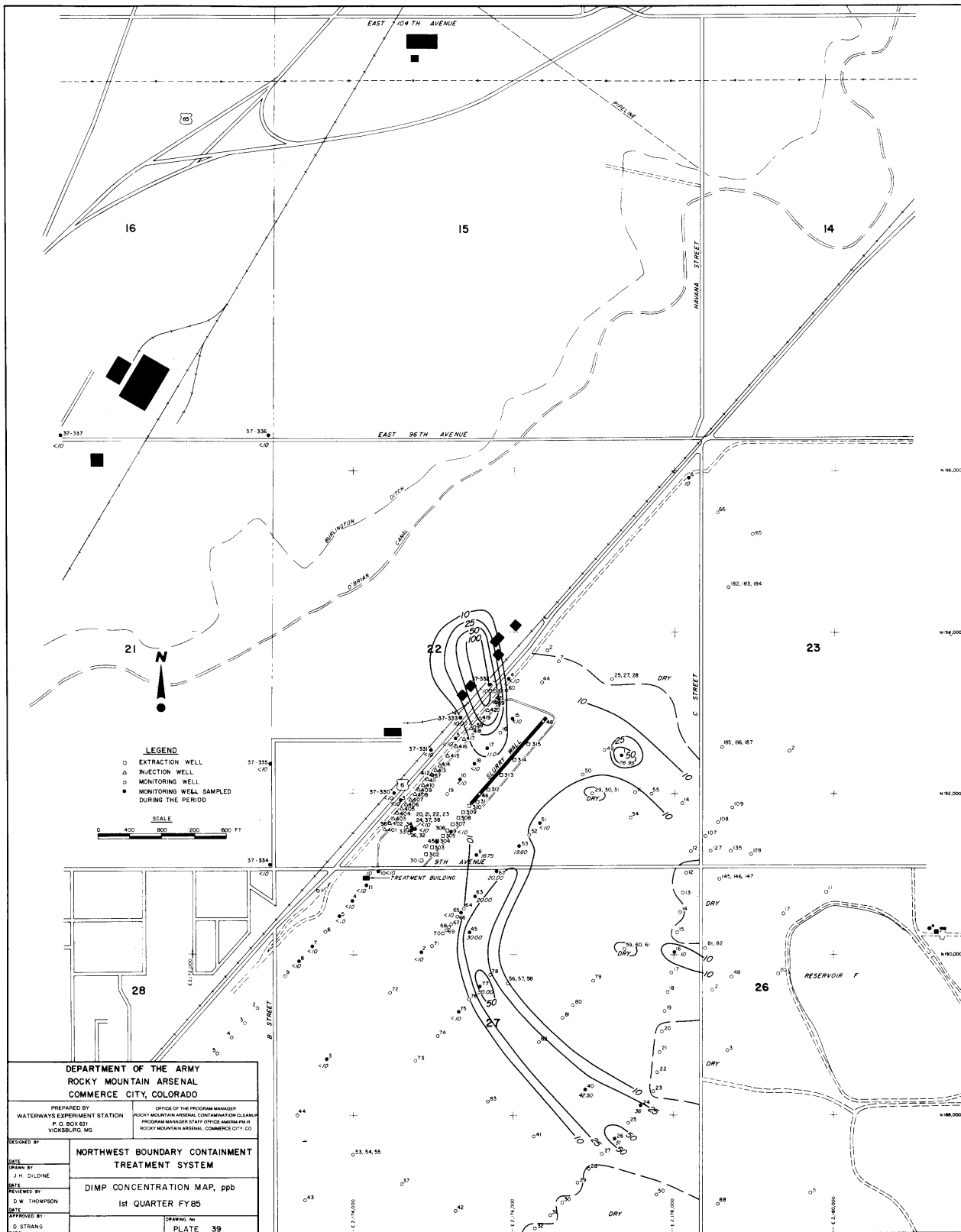


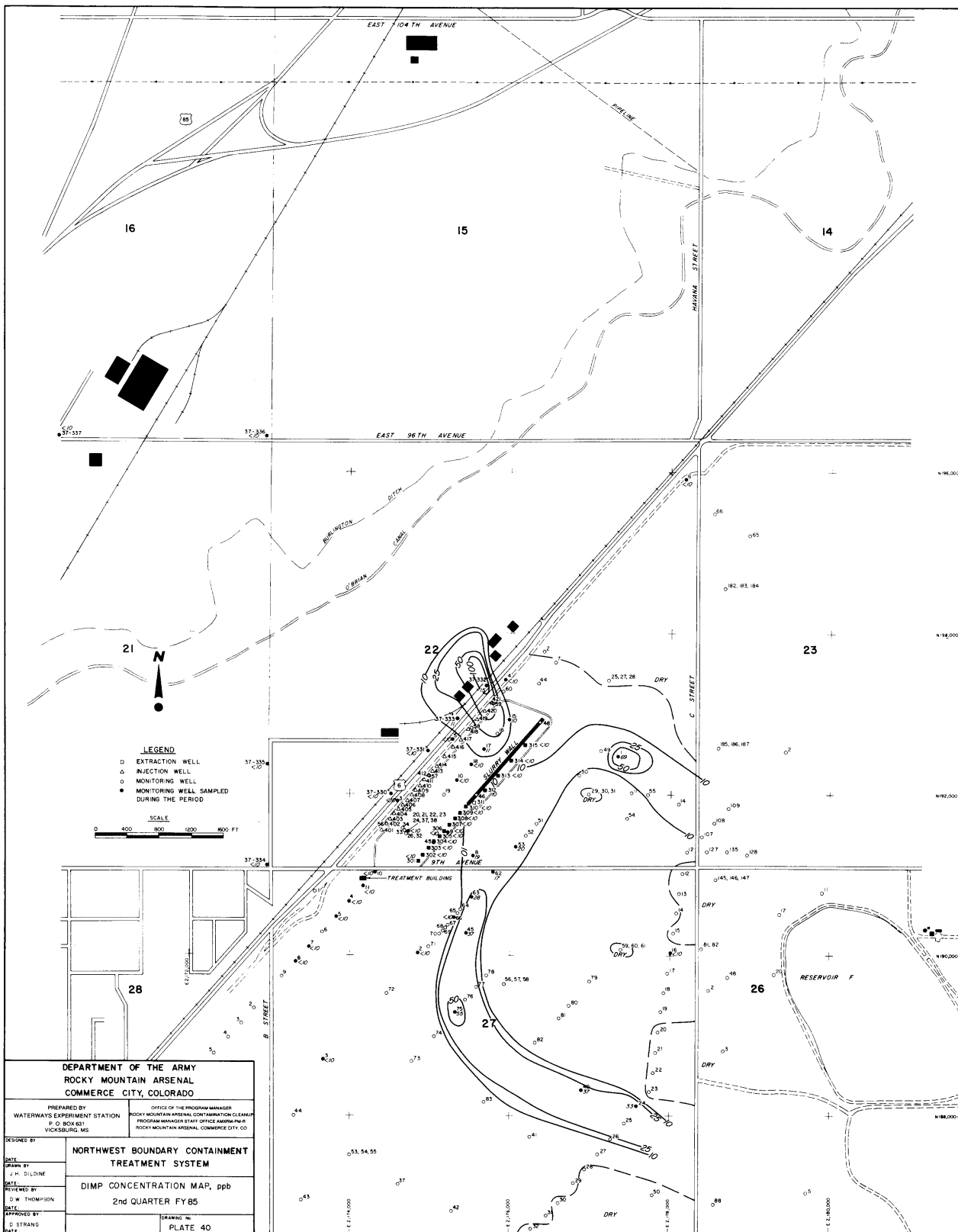


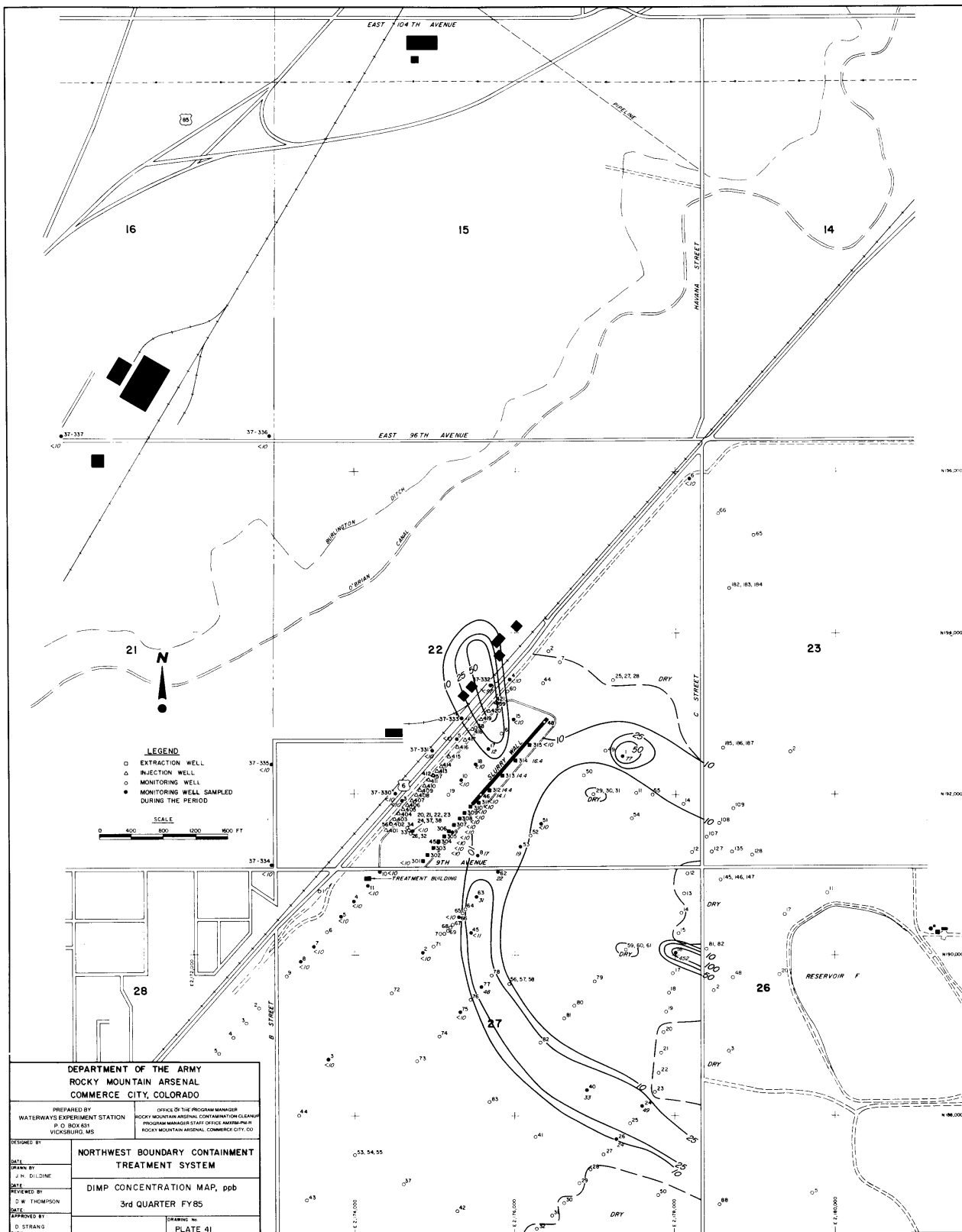


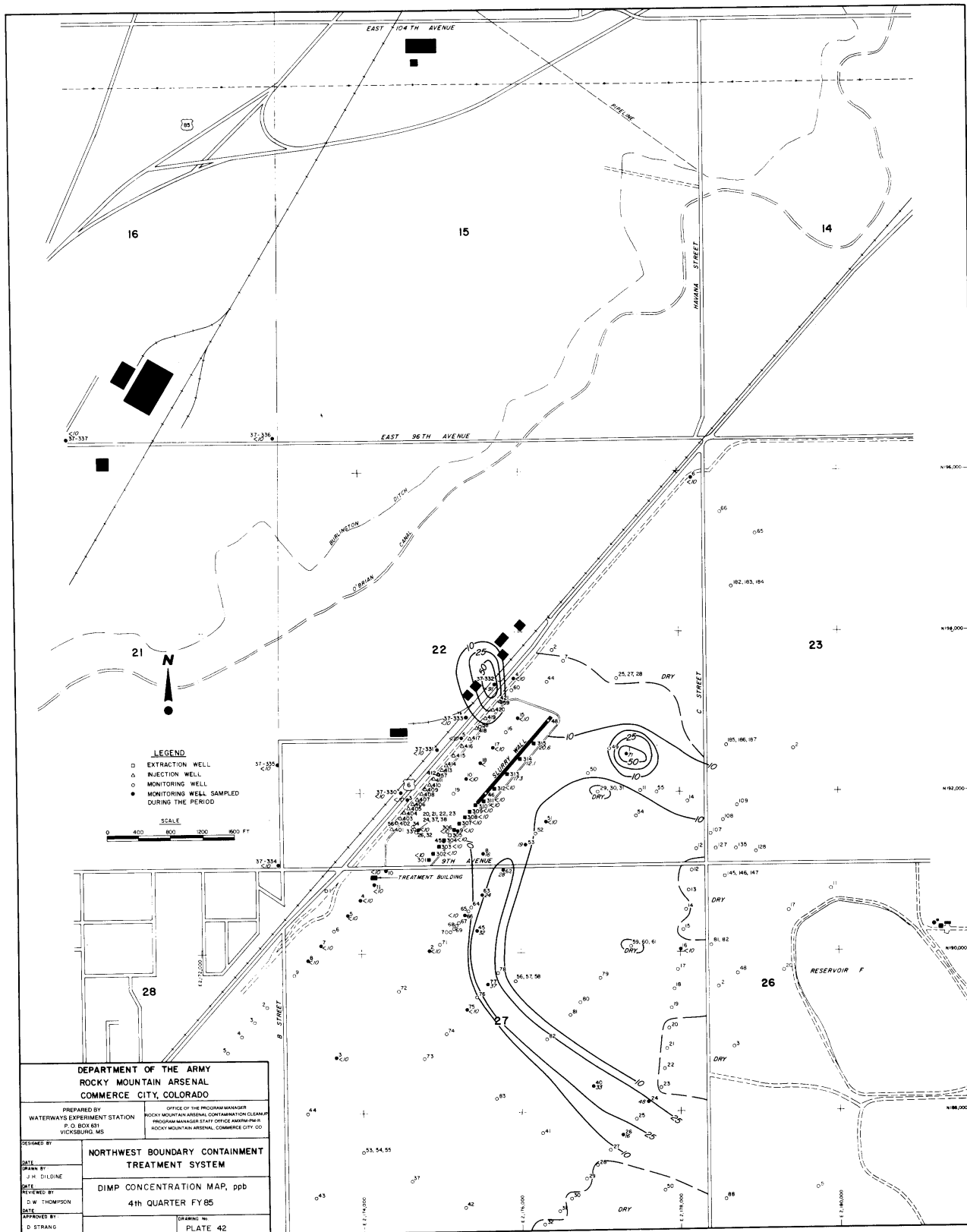


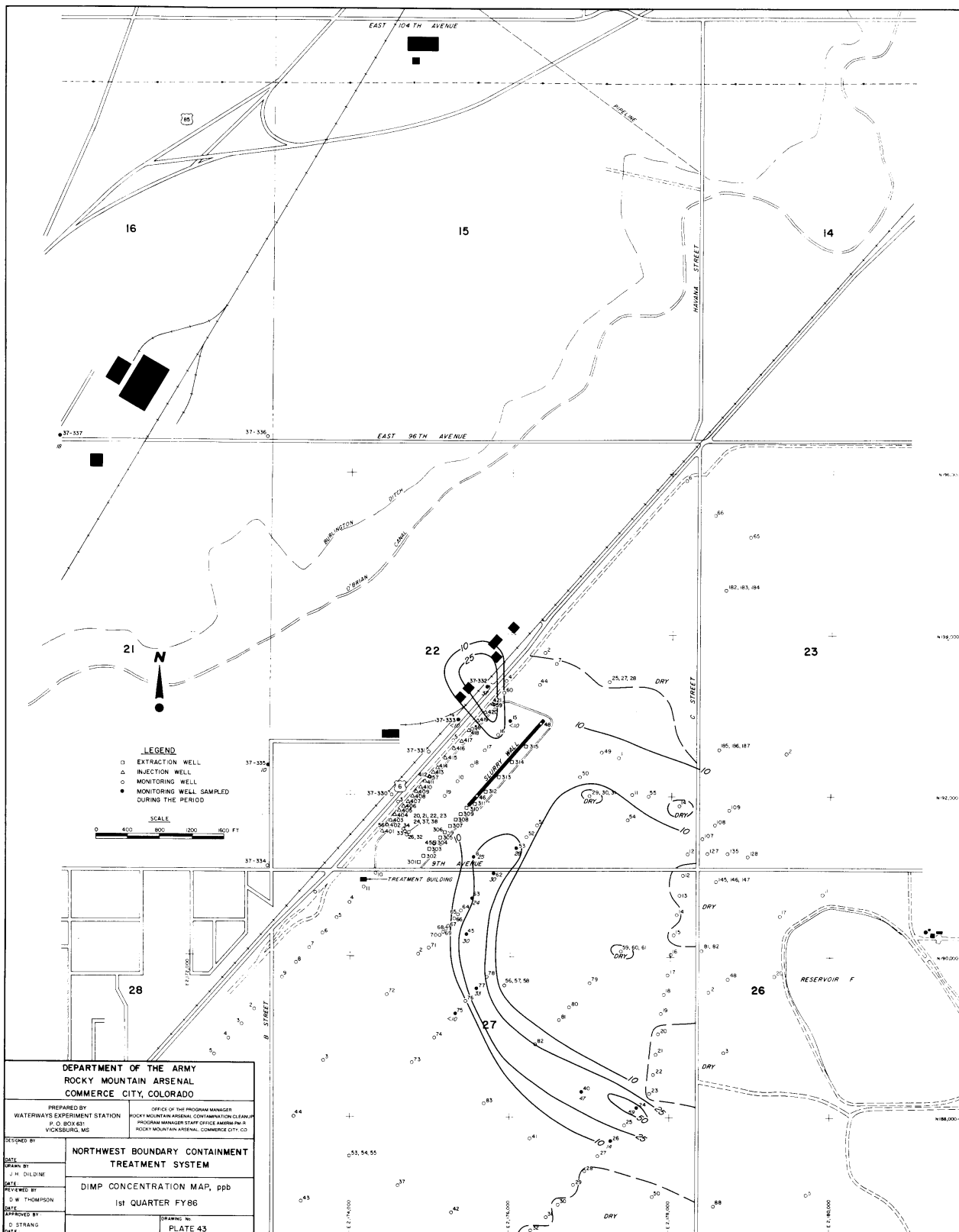




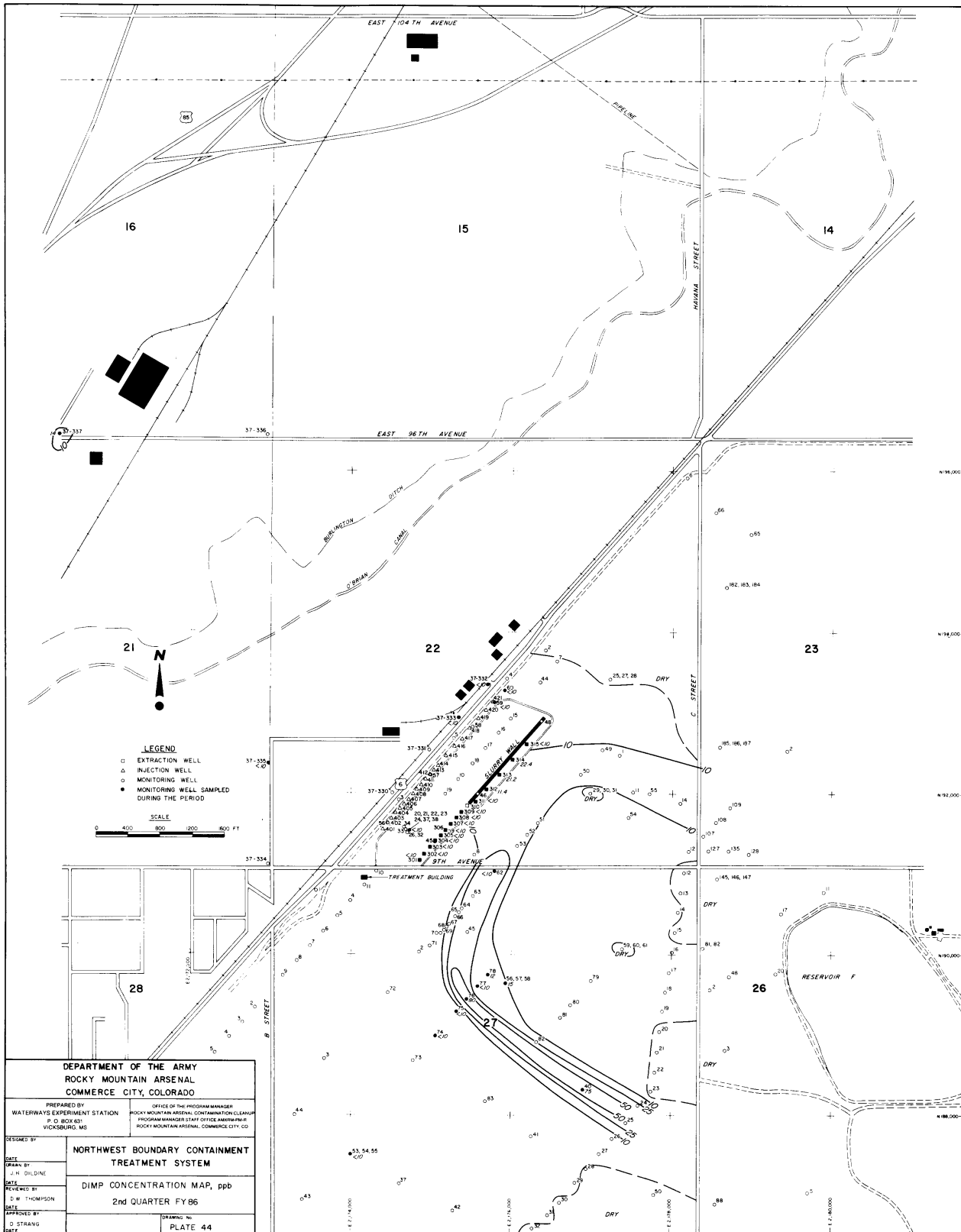


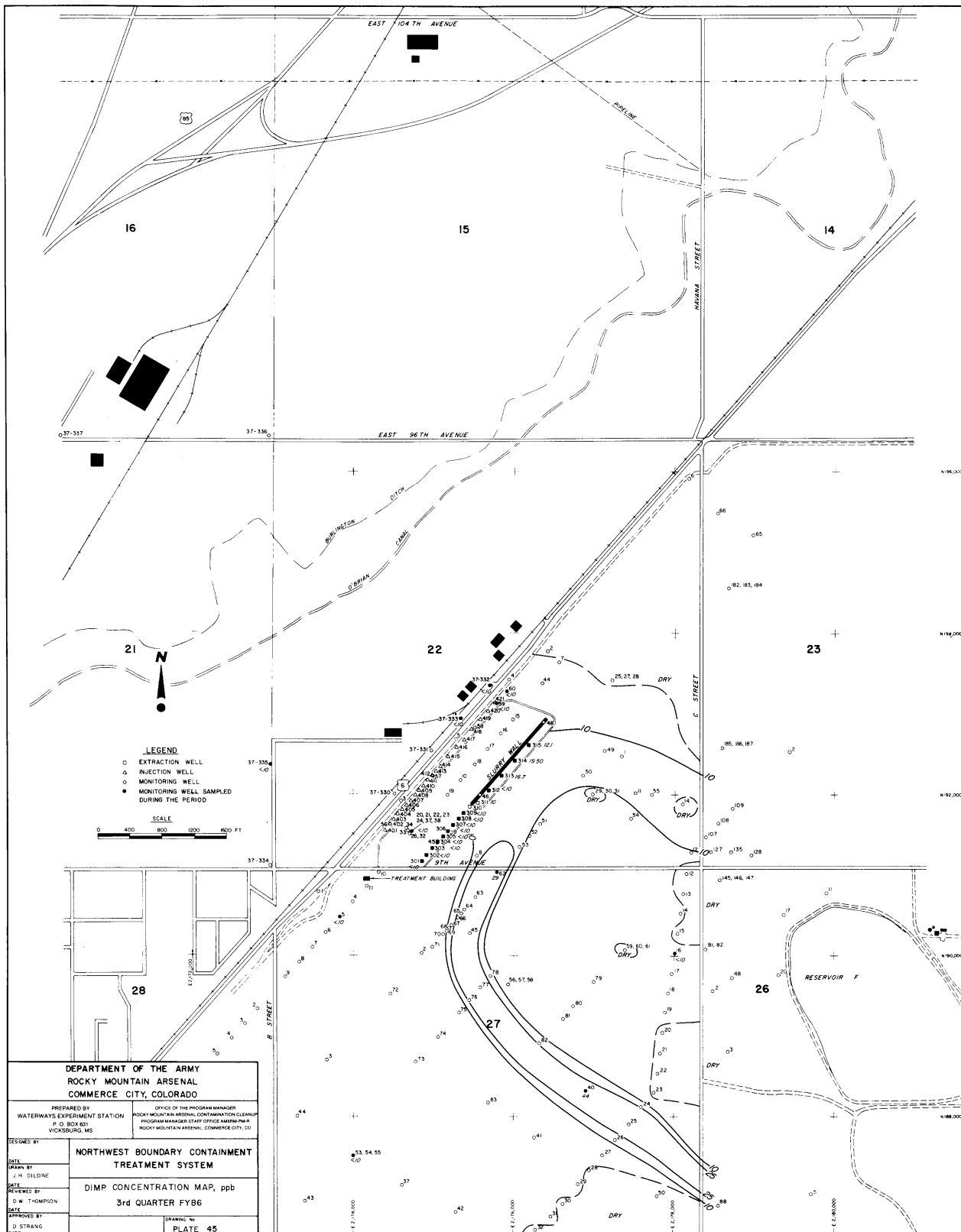


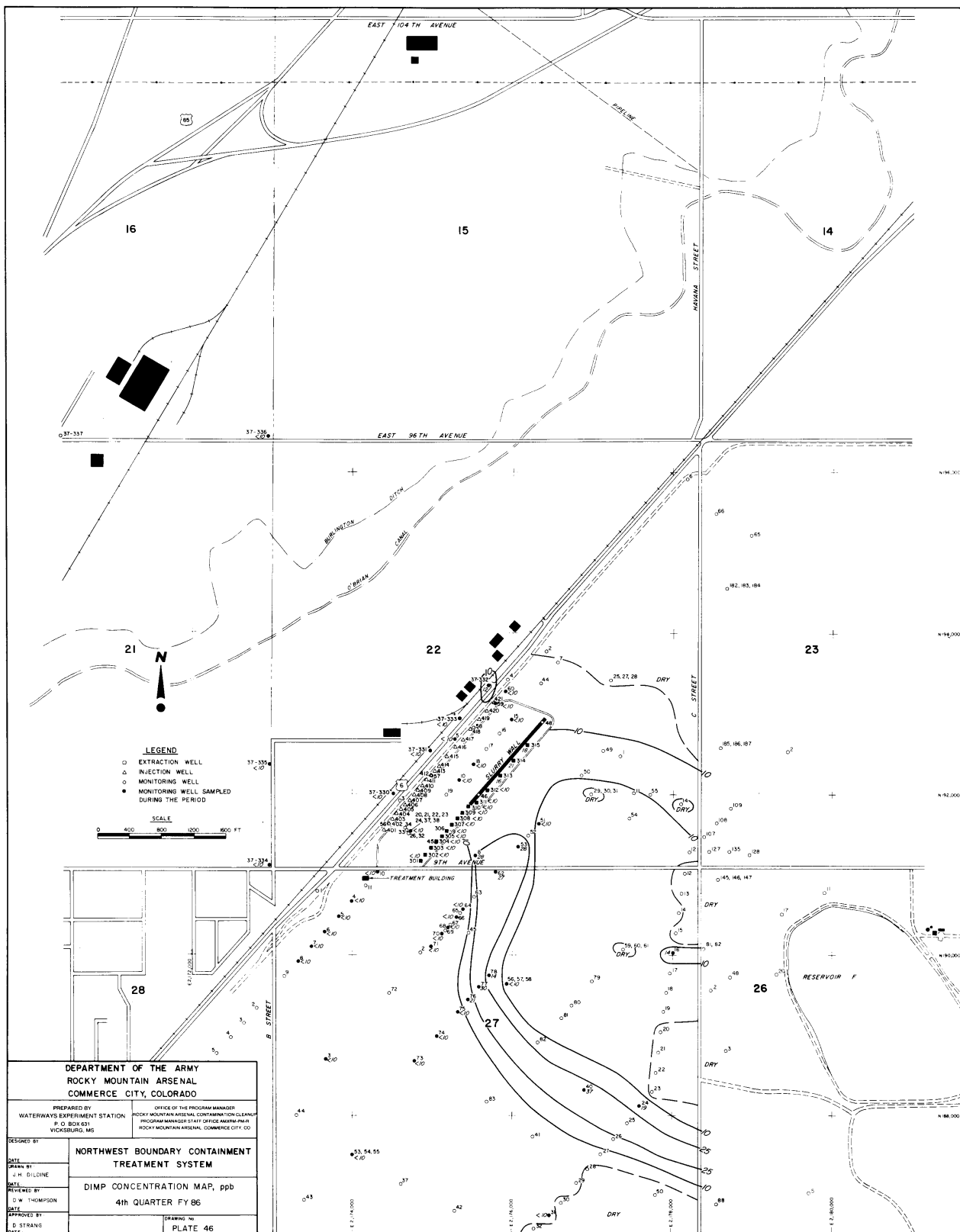


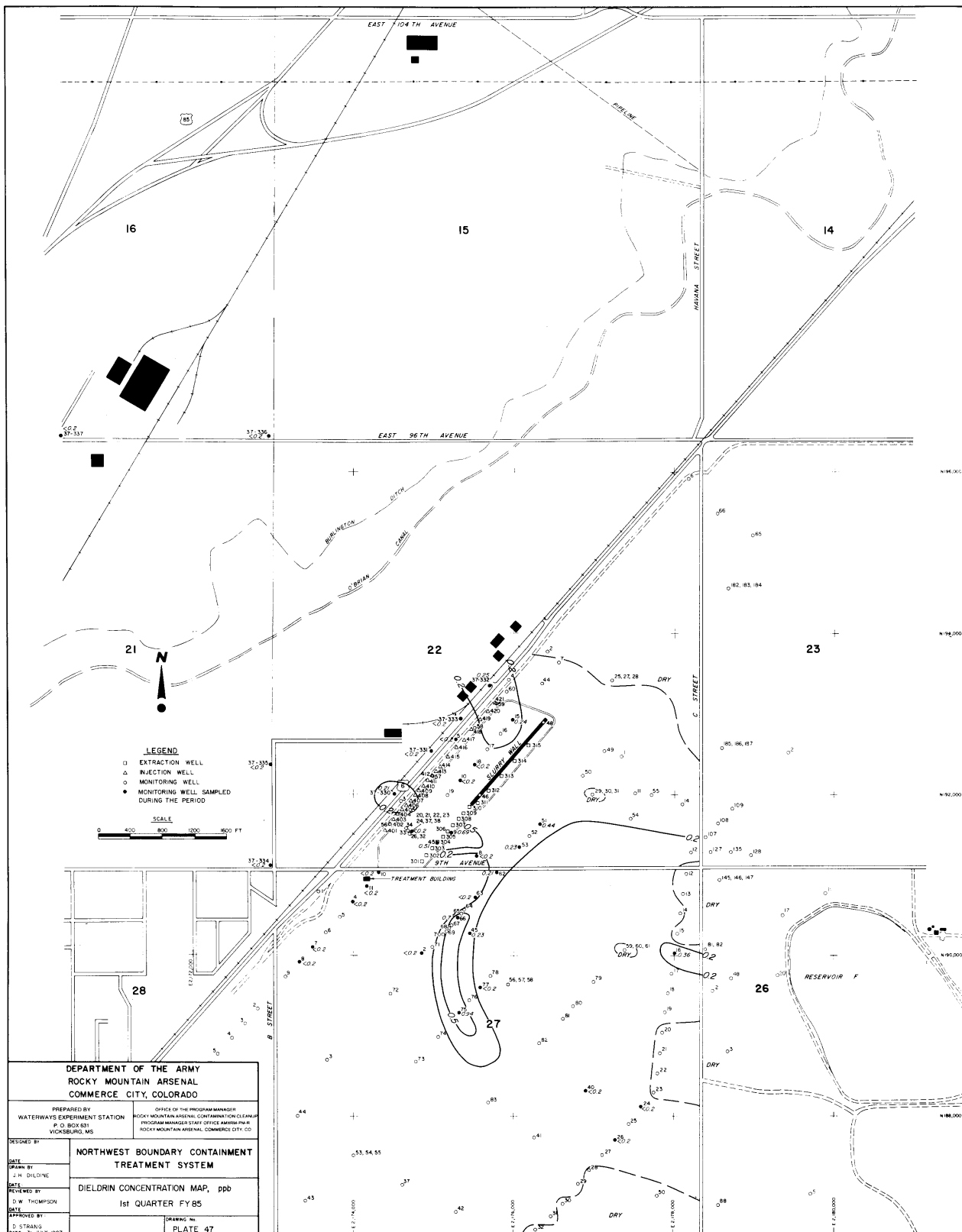


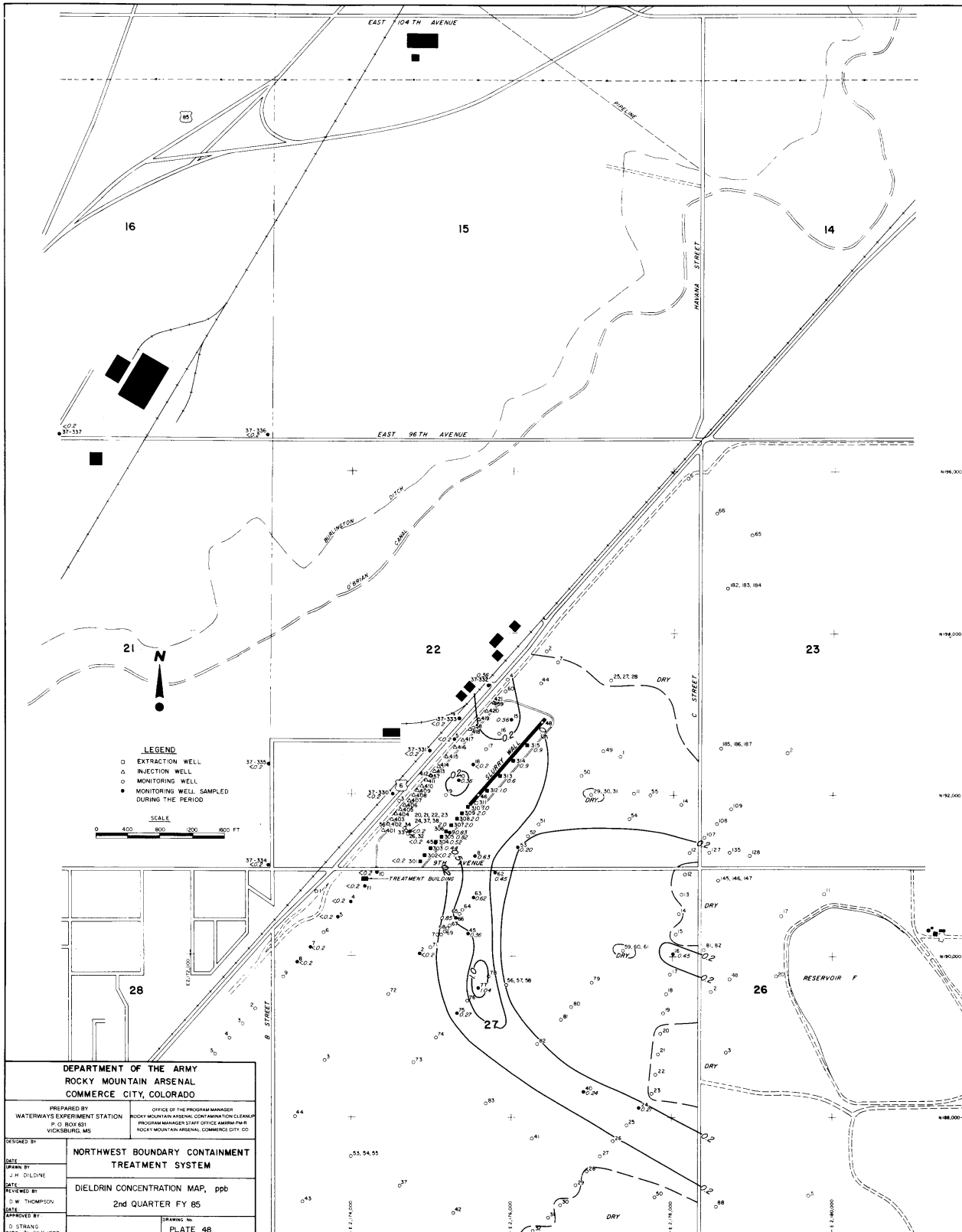


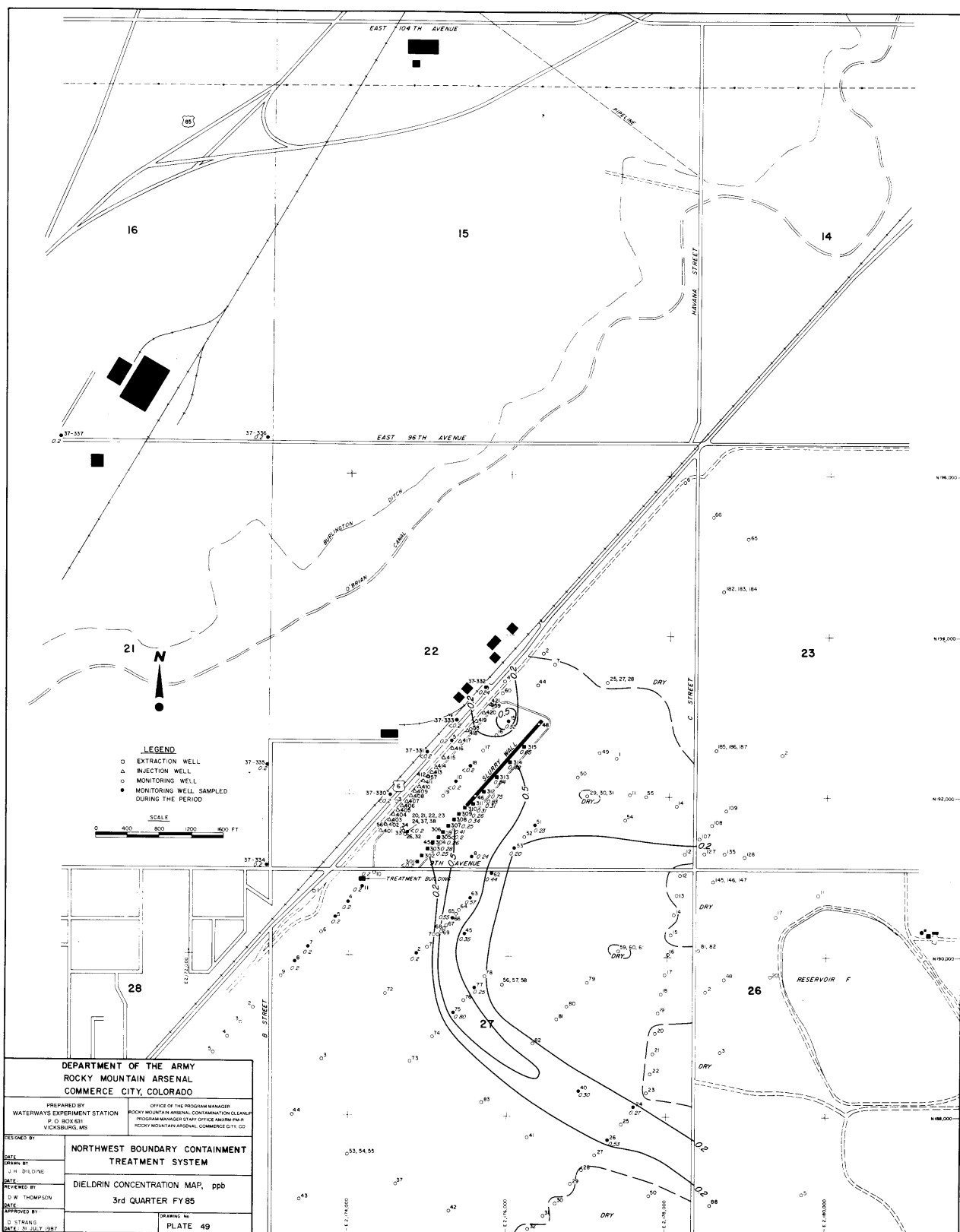


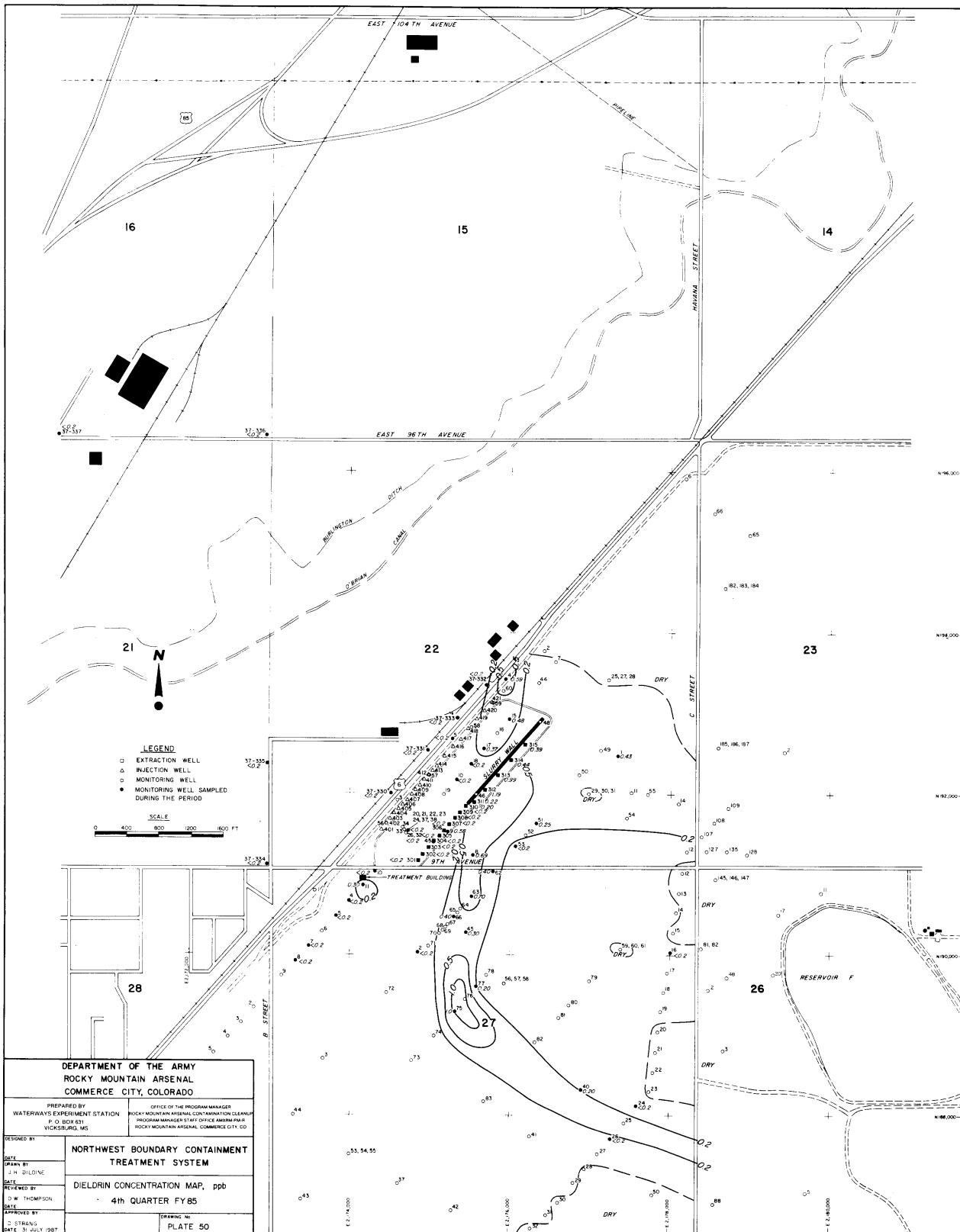


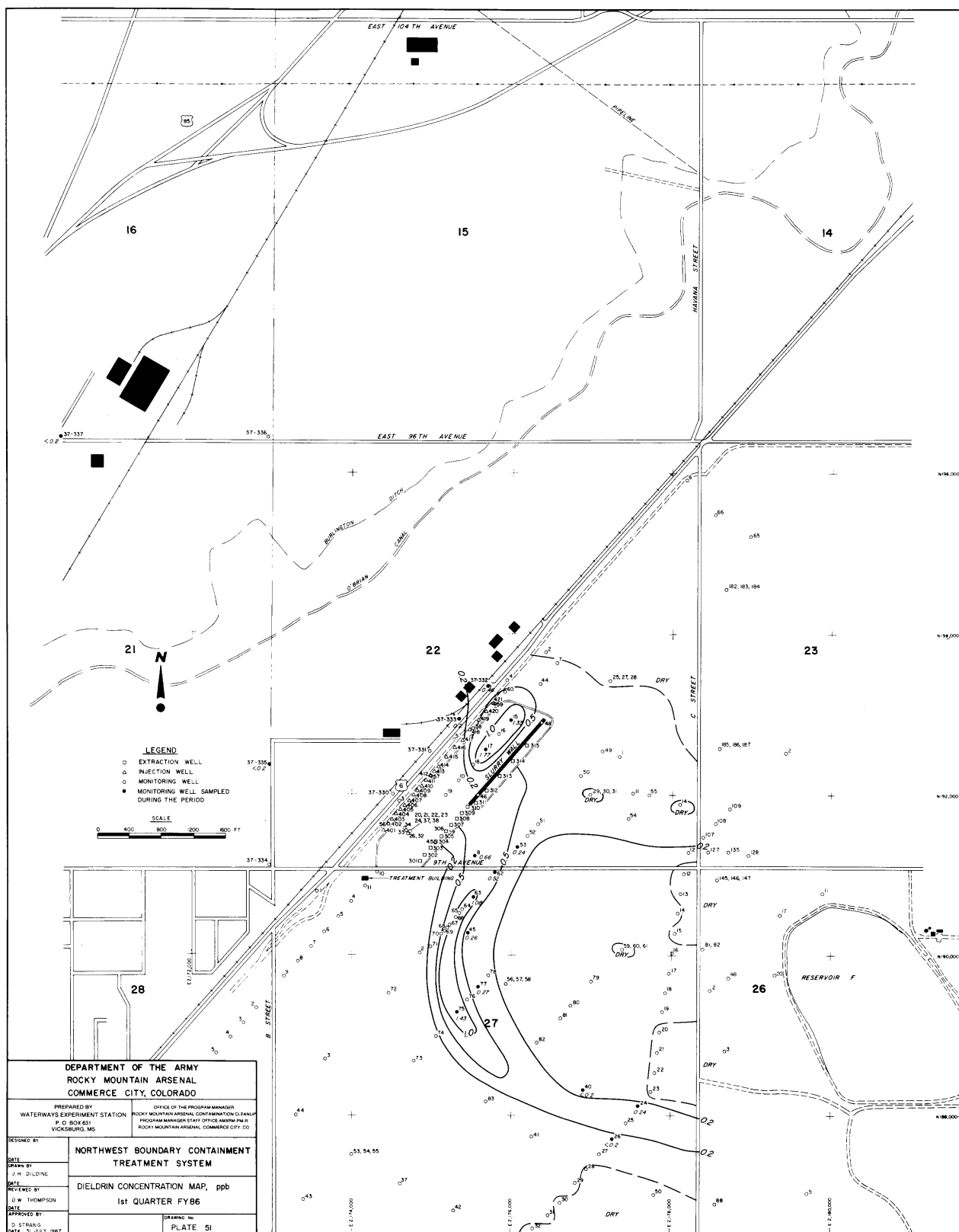




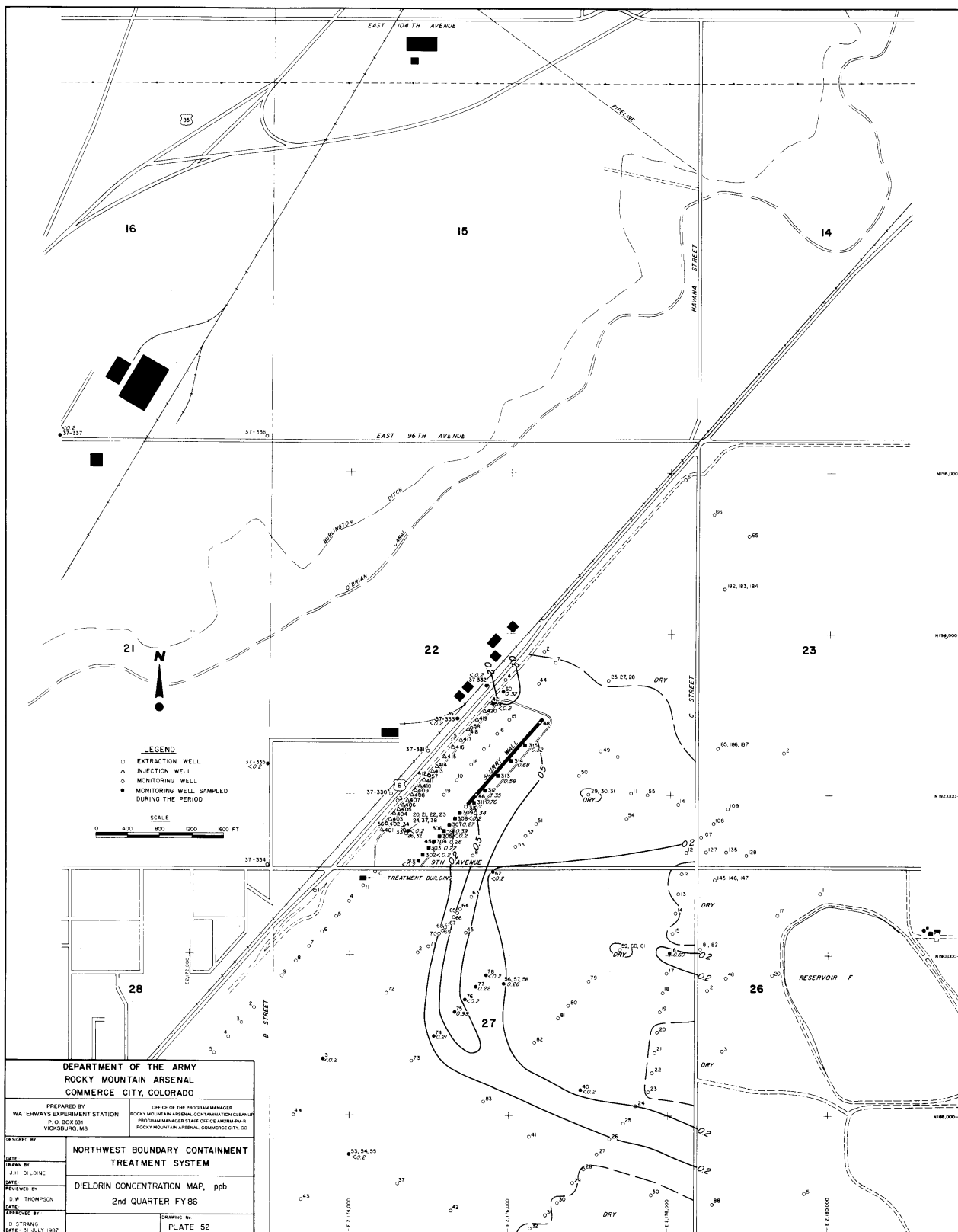


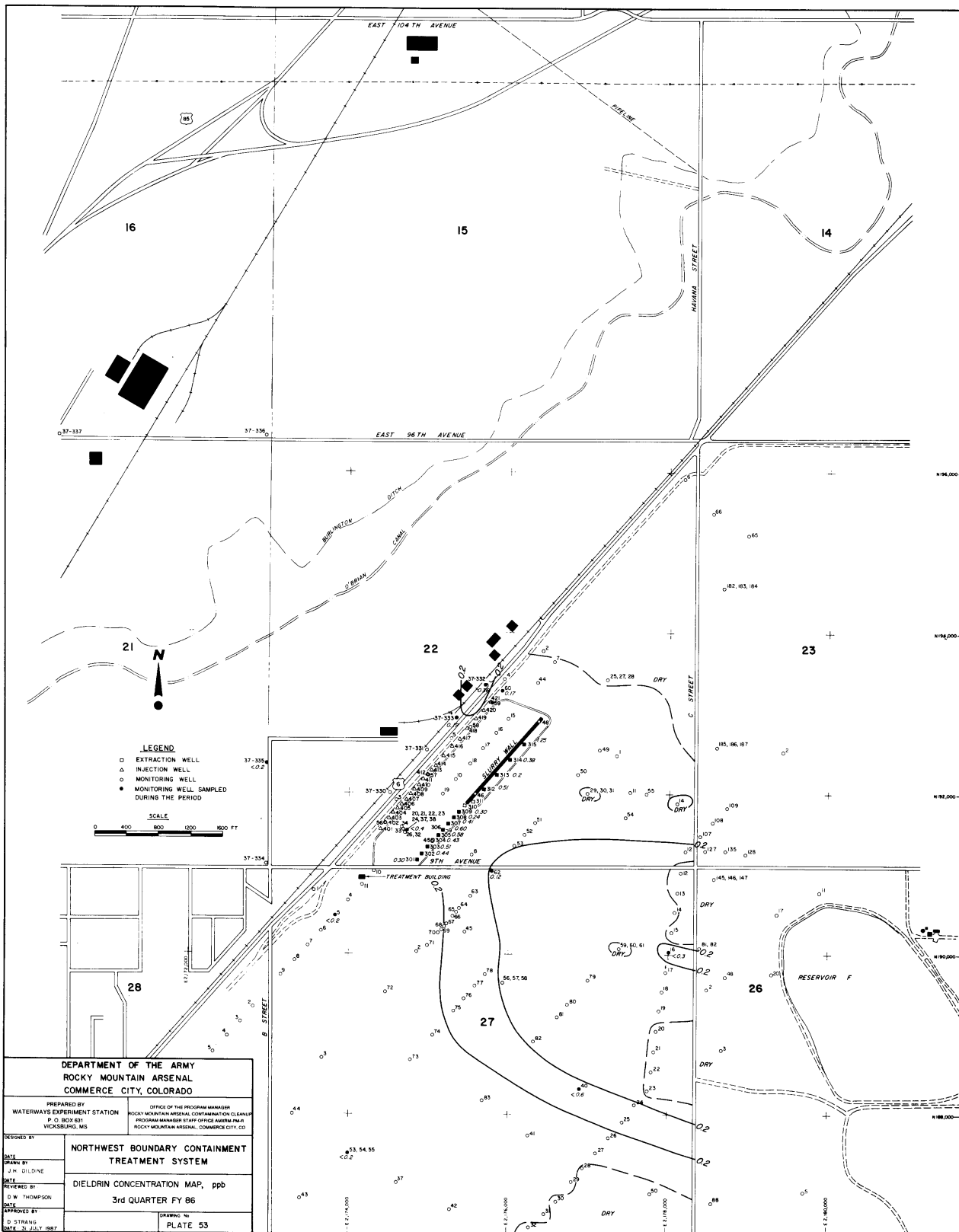


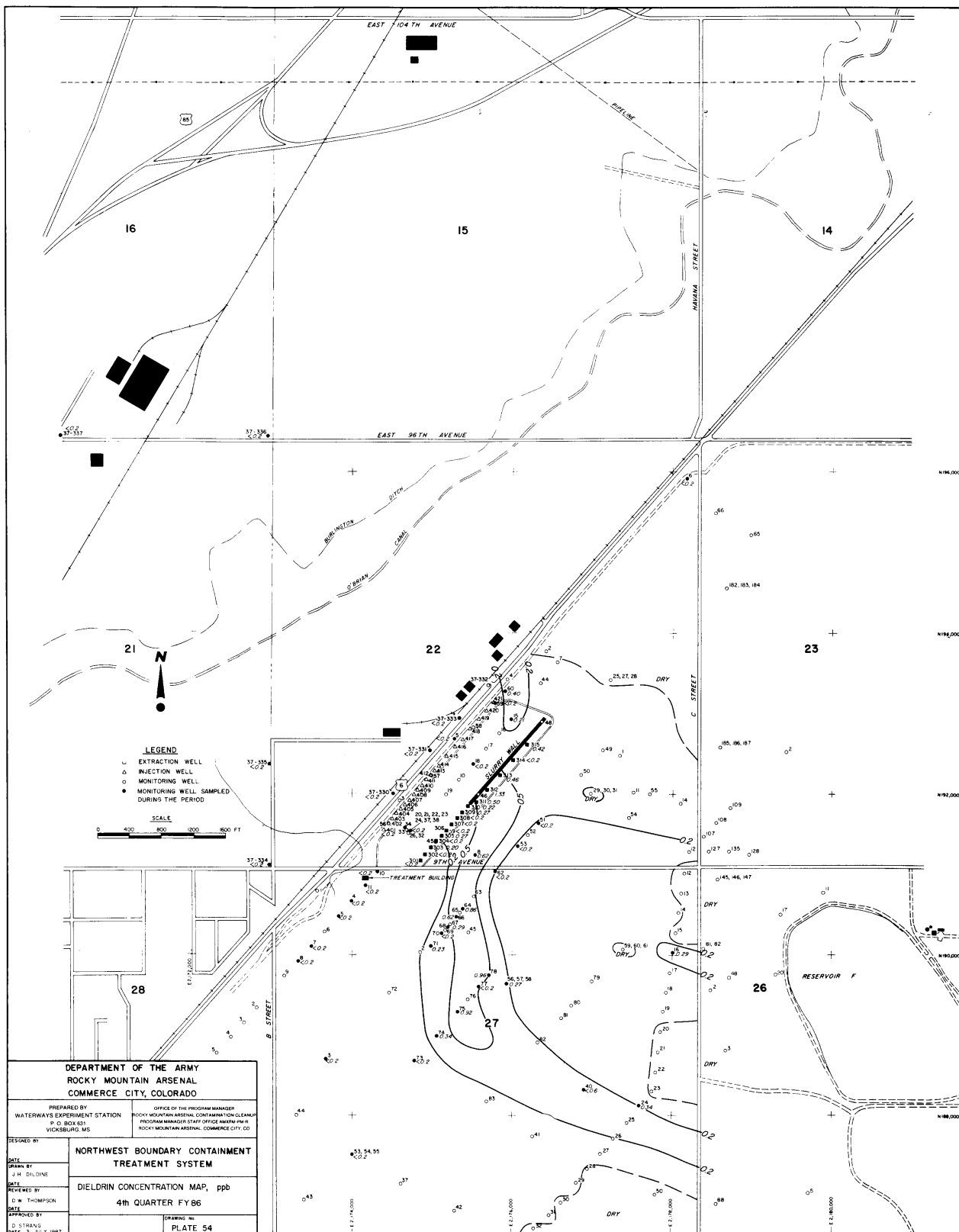


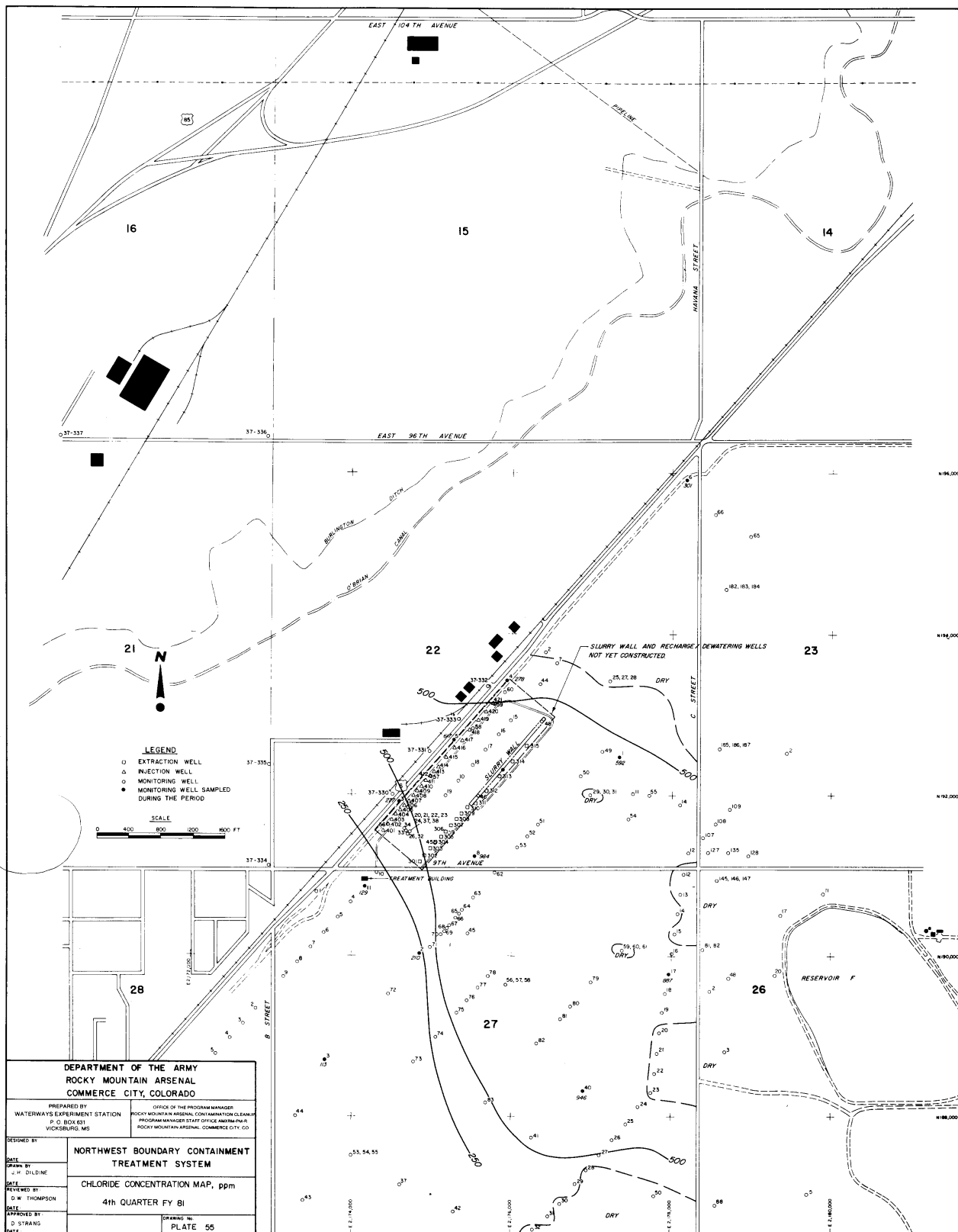


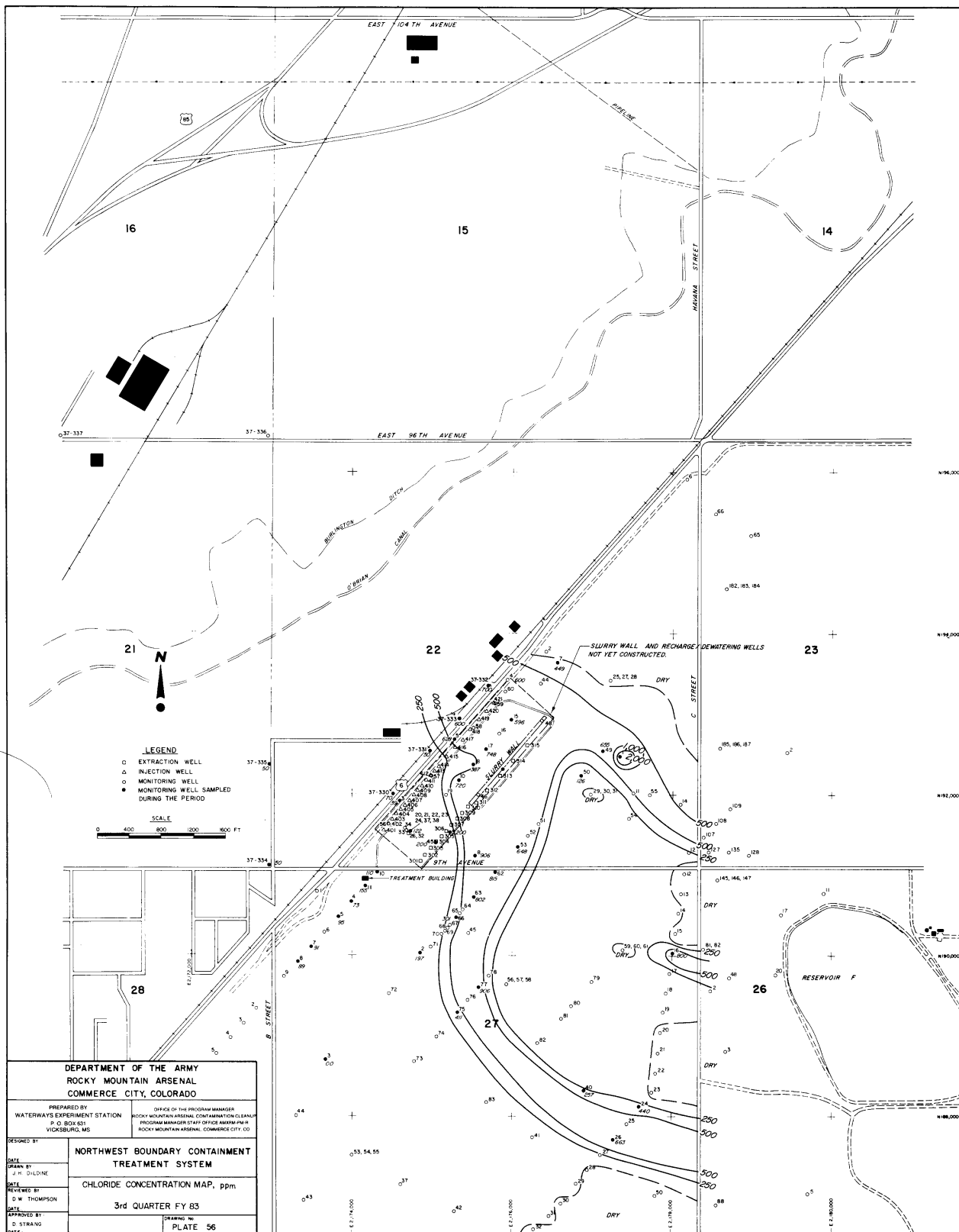


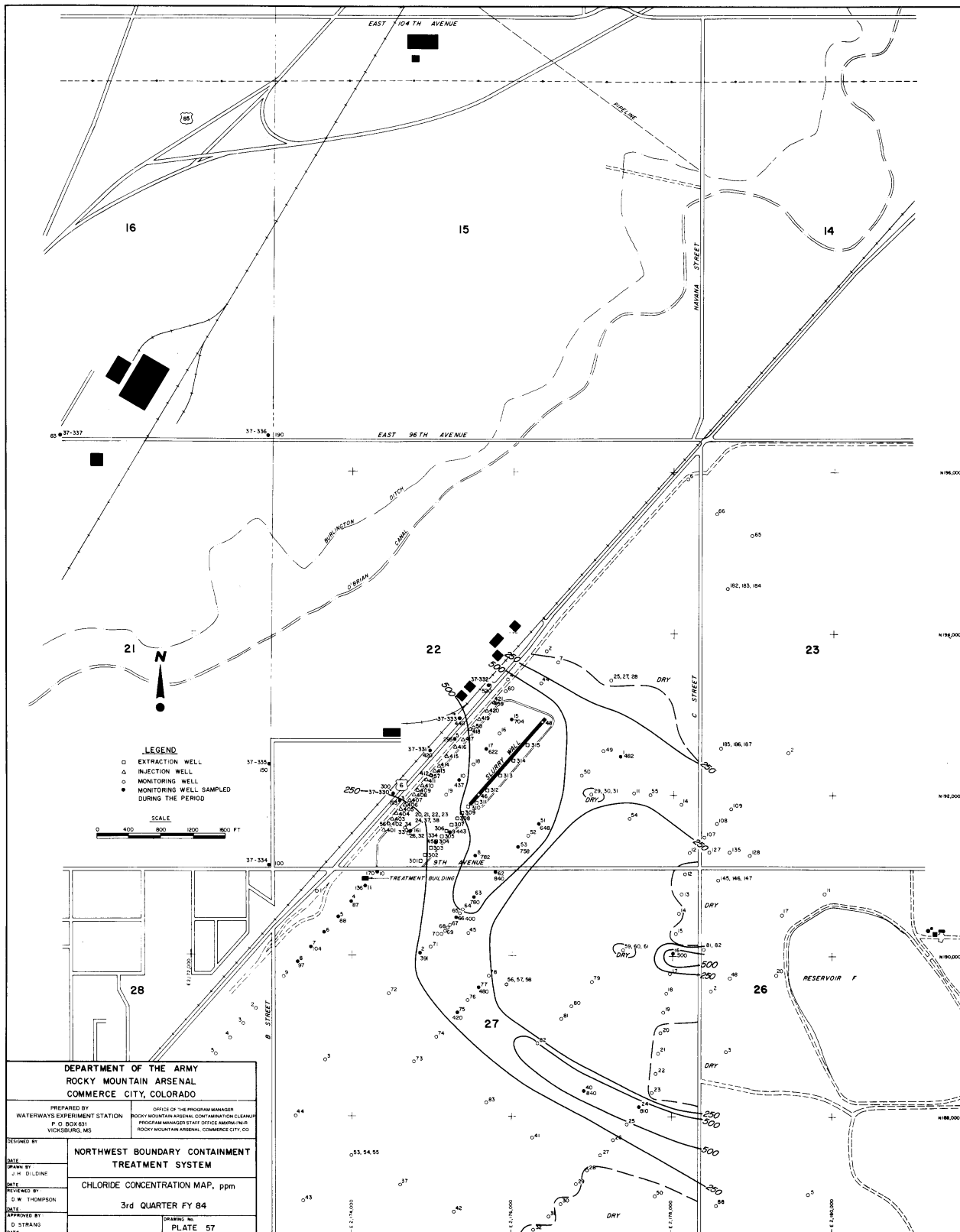




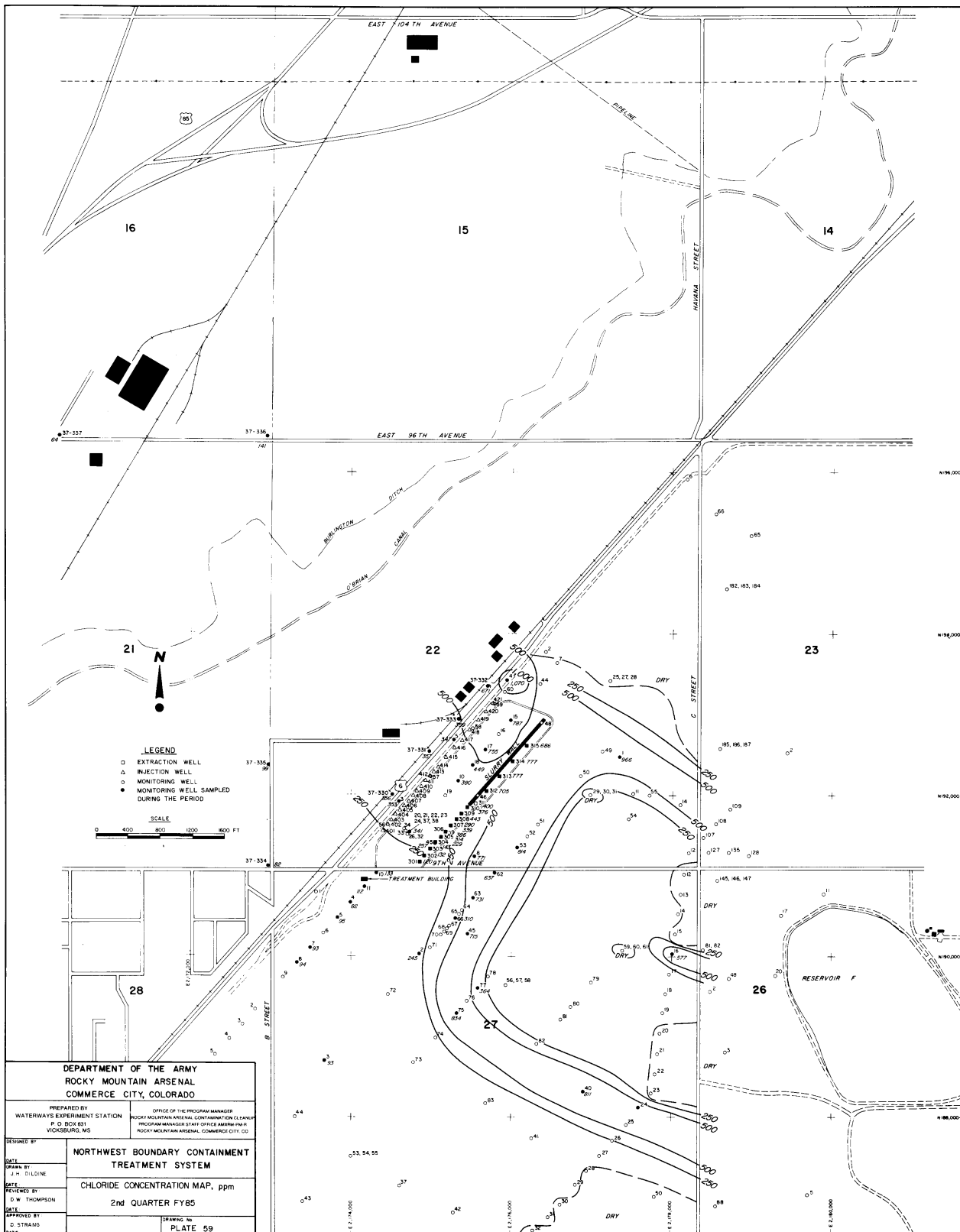






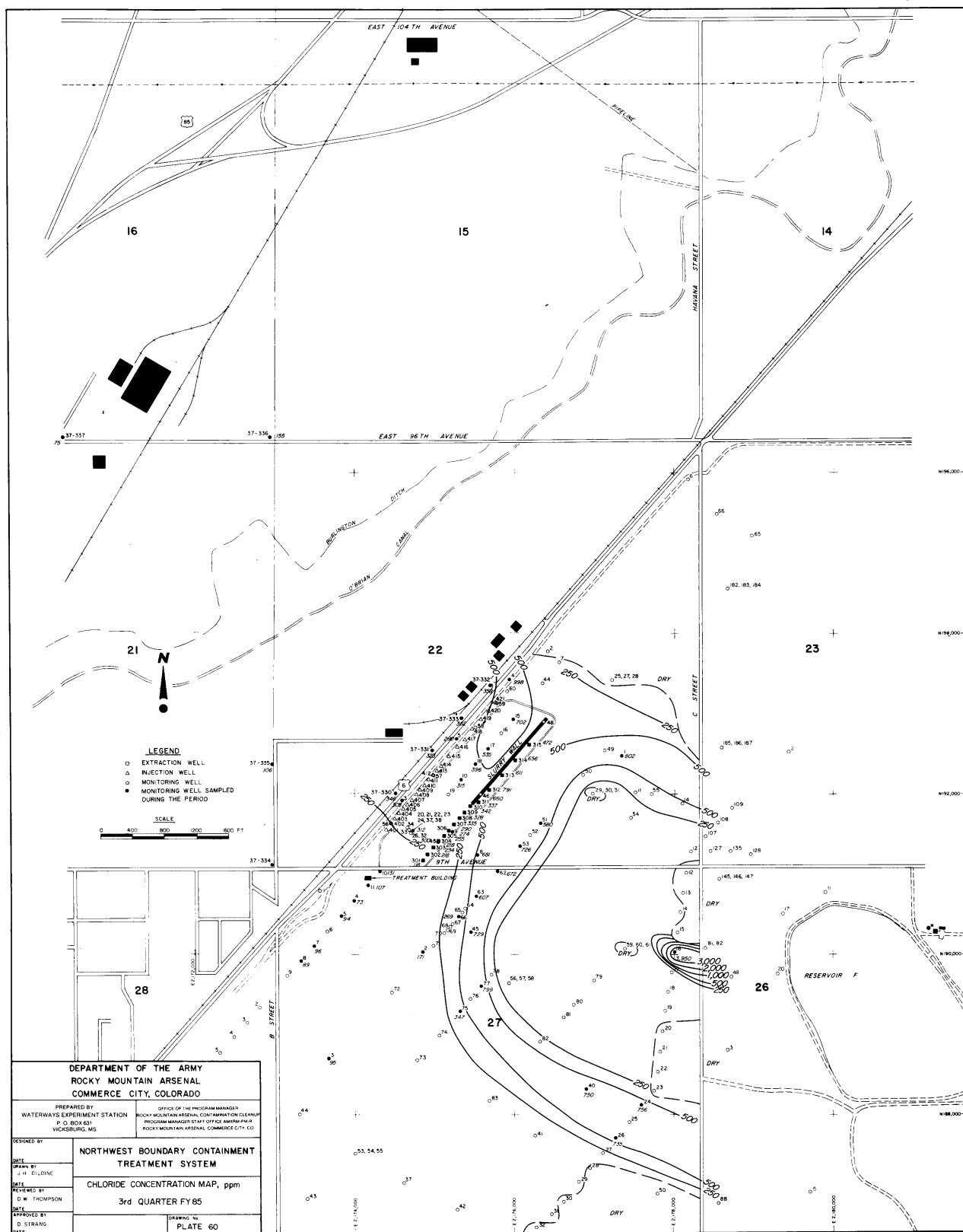


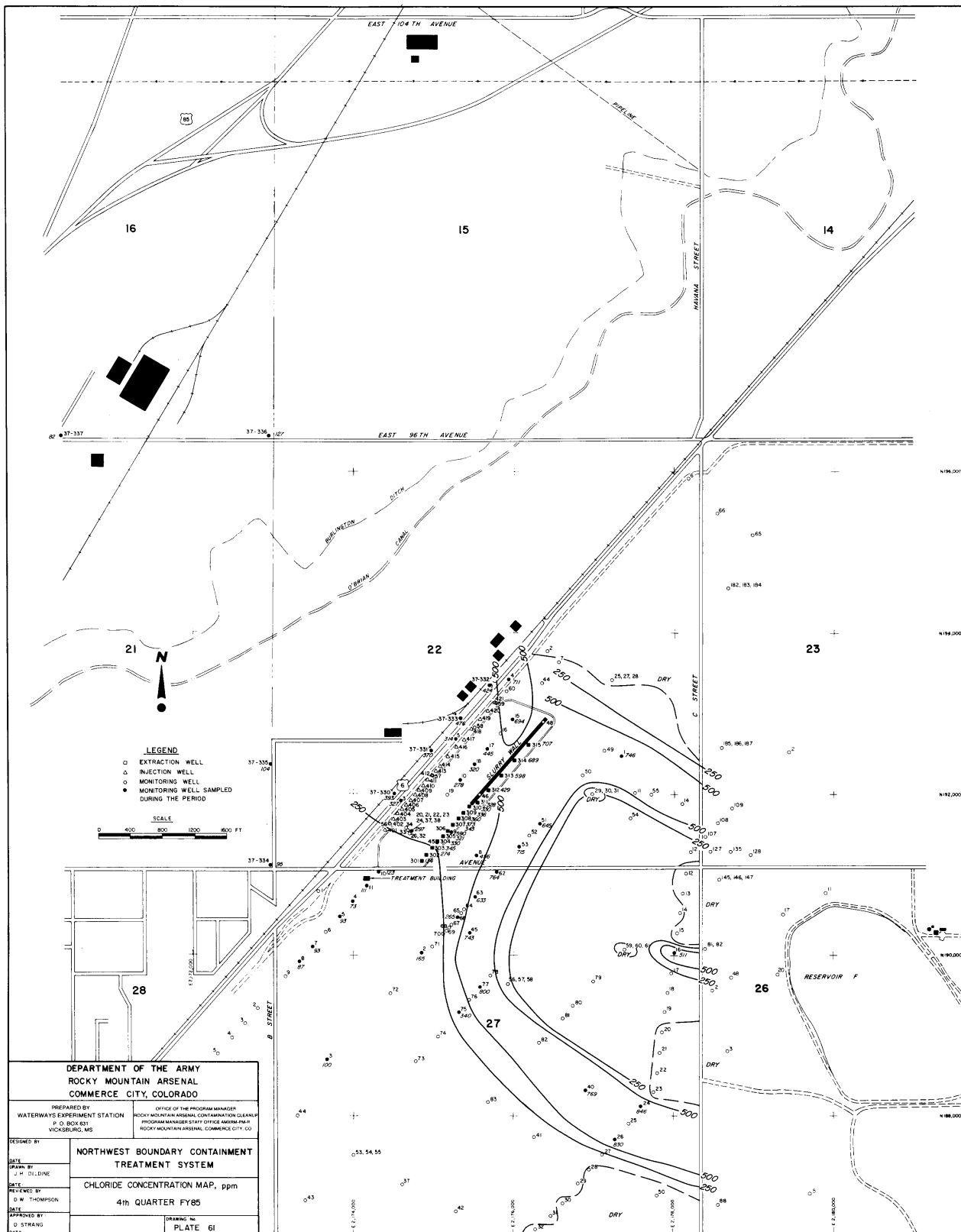


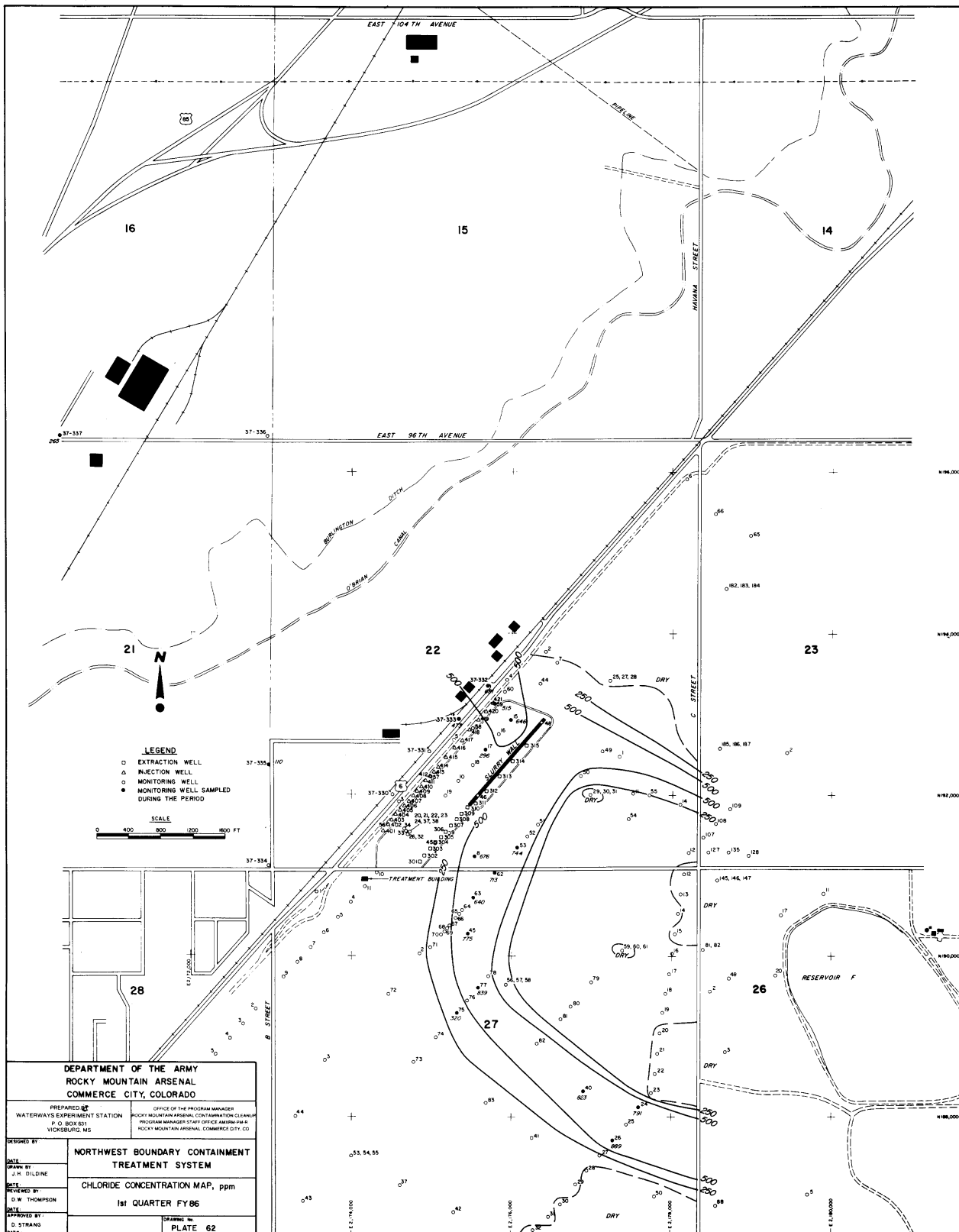


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| DESIGNED BY<br>DATE<br>DRAWN BY<br>DATE<br>REVIEWED BY<br>DATE<br>APPROVED BY<br>DATE | NORTHWEST BOUNDARY CONTAINMENT<br>TREATMENT SYSTEM<br>CHLORIDE CONCENTRATION MAP, ppm<br>2nd QUARTER FY85<br>DRAWING No. PLATE 59                                       |

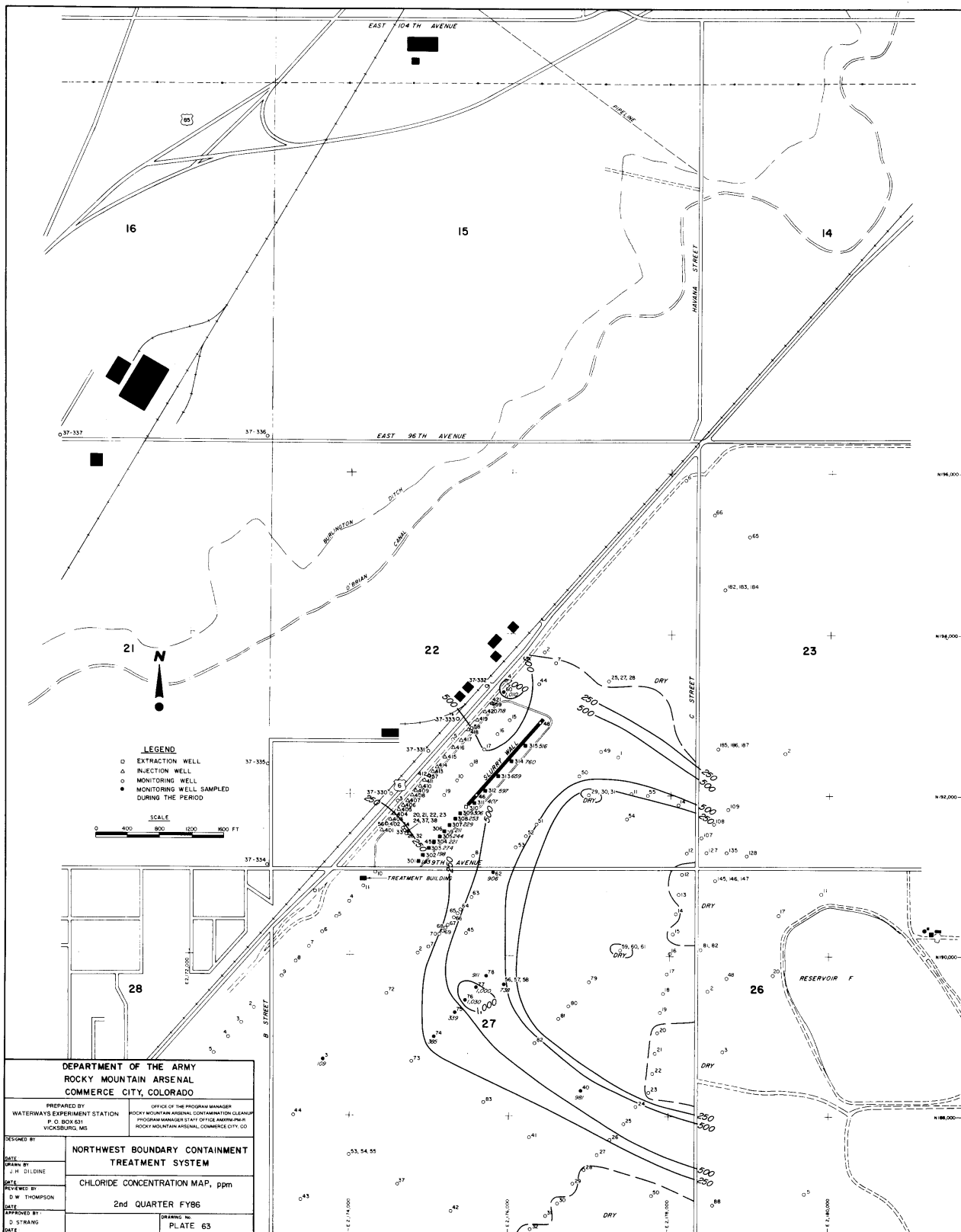


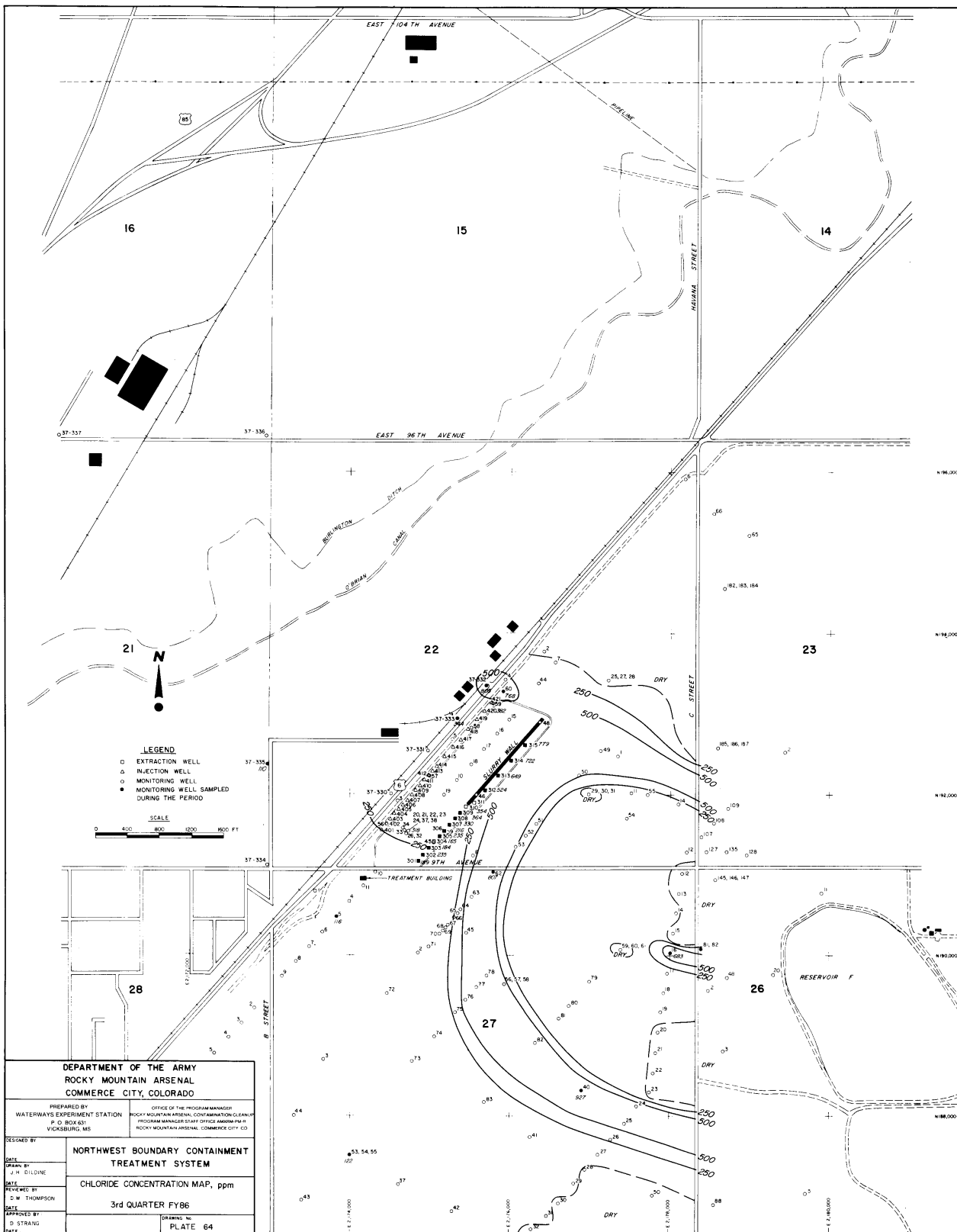


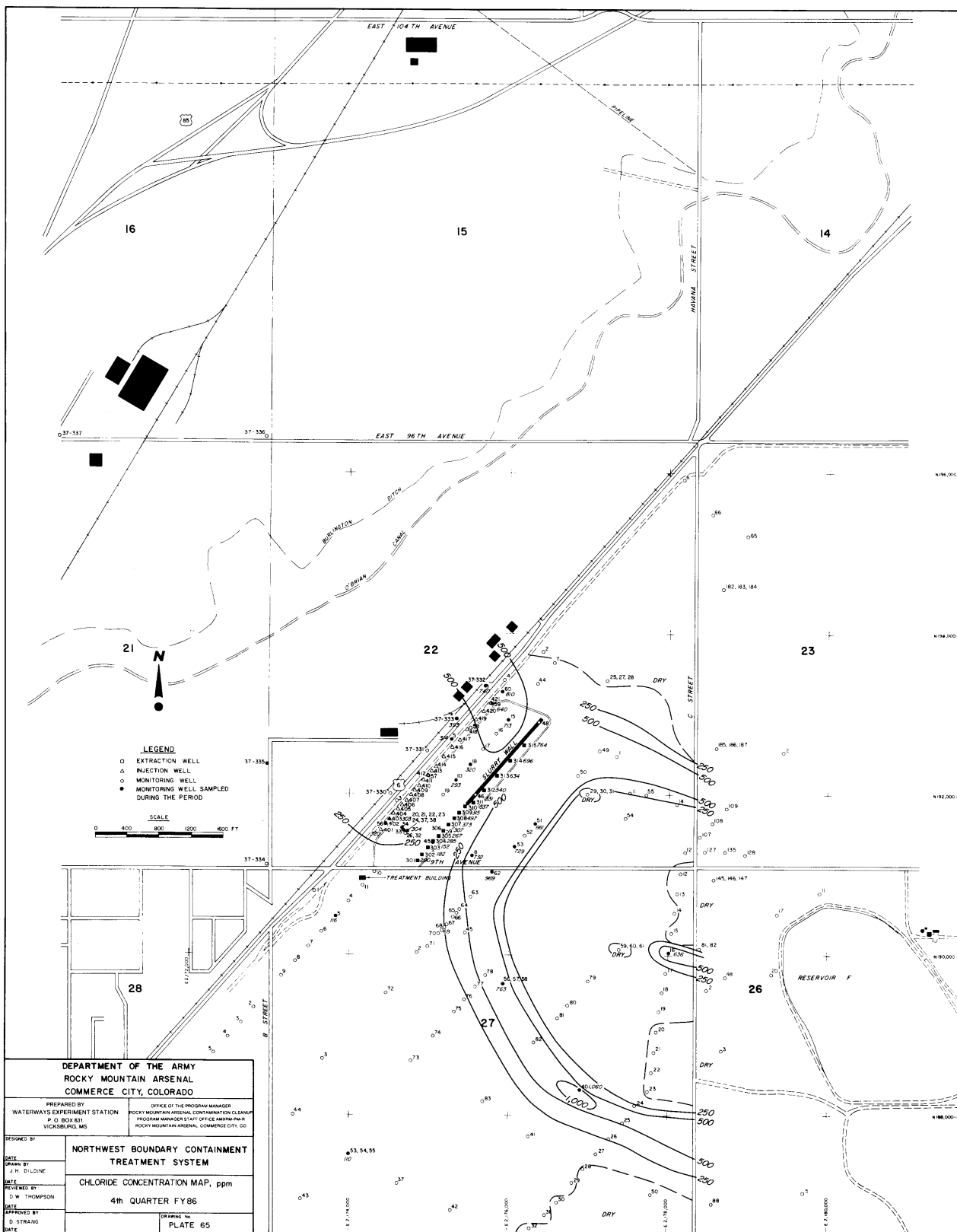


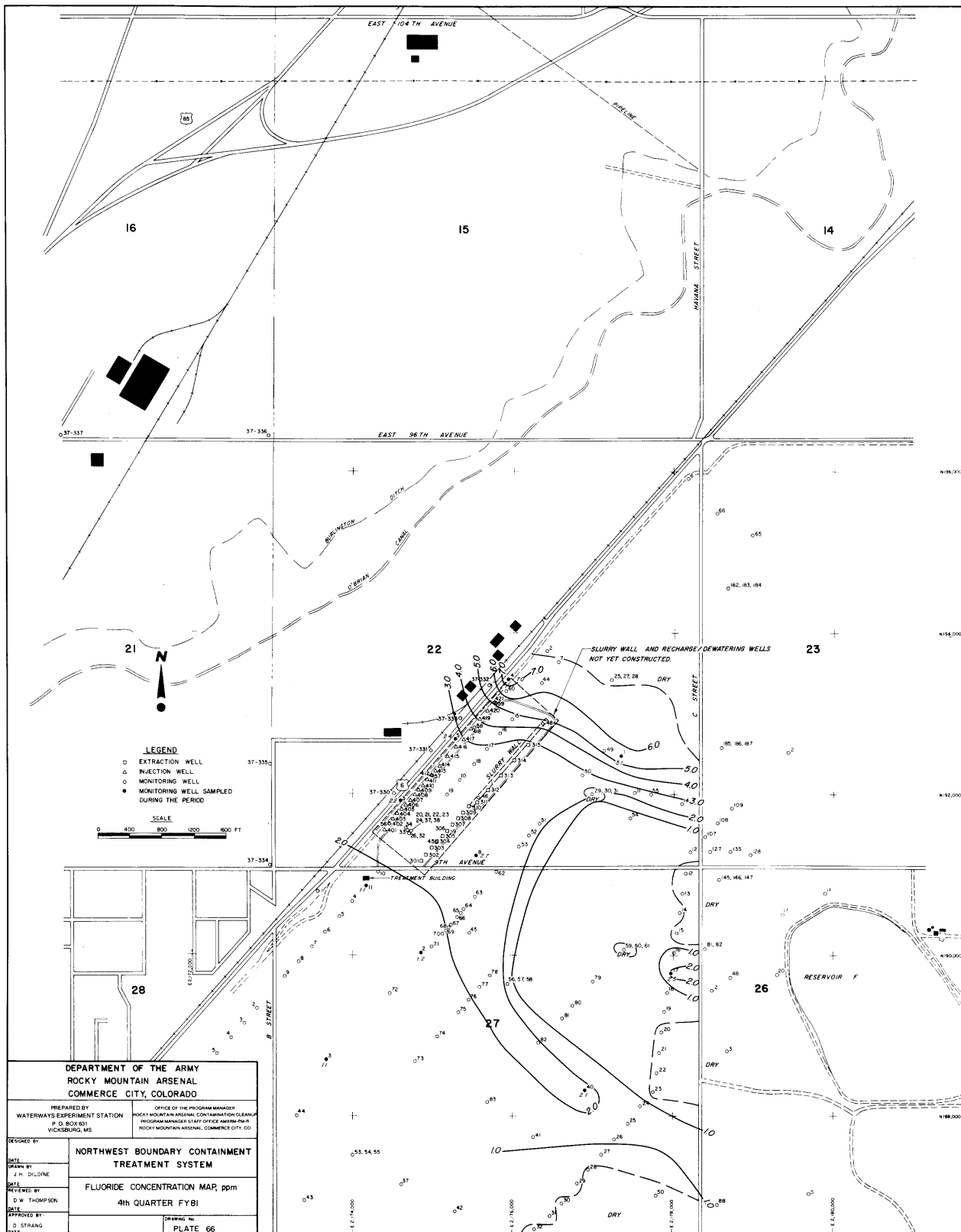


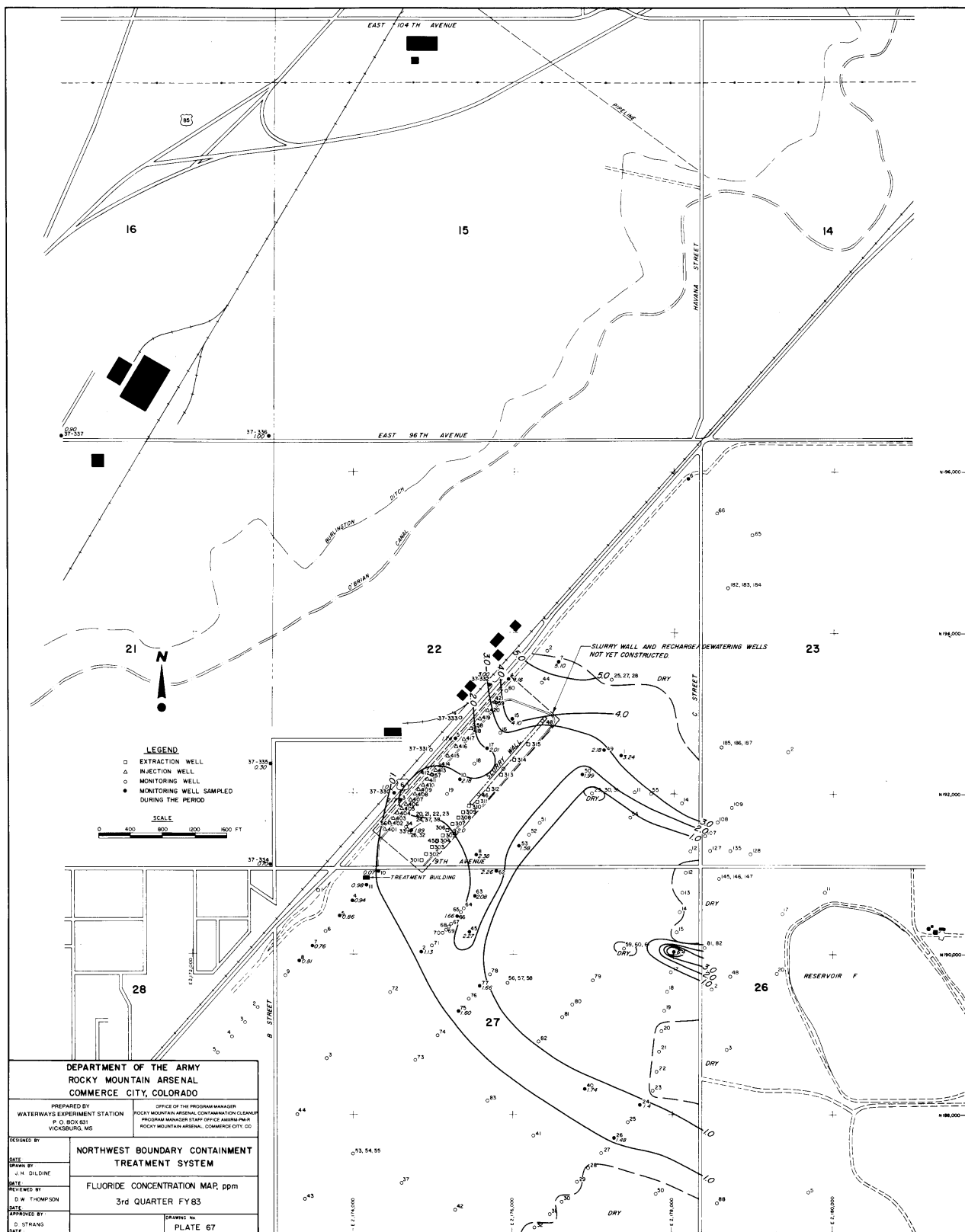
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| PREPARED BY<br>WATERWAYS EXPERIMENT STATION<br>P.O. BOX 631<br>WYCKSBURG, MD. | OFFICE OF THE PROGRAM MANAGER<br>ROCKY MOUNTAIN ARSENAL, CONTAMINATION CLEANUP<br>PROGRAM MANAGER'S OFFICE, 4600 PA 4<br>ROCKY MOUNTAIN ARSENAL, COMMERCIAL CITY, CO. |
| DESIGNED BY<br>NORTHWEST BOUNDARY CONTAINMENT<br>TREATMENT SYSTEM             |   |
| CHLORIDE CONCENTRATION MAP, ppm<br>1st QUARTER FY86                           |   |
| APPROVED BY<br>D. W. THOMPSON   | DATE<br>10/1/85   |
| APPROVED BY<br>D. STRANG  | DATE<br>10/1/85   |



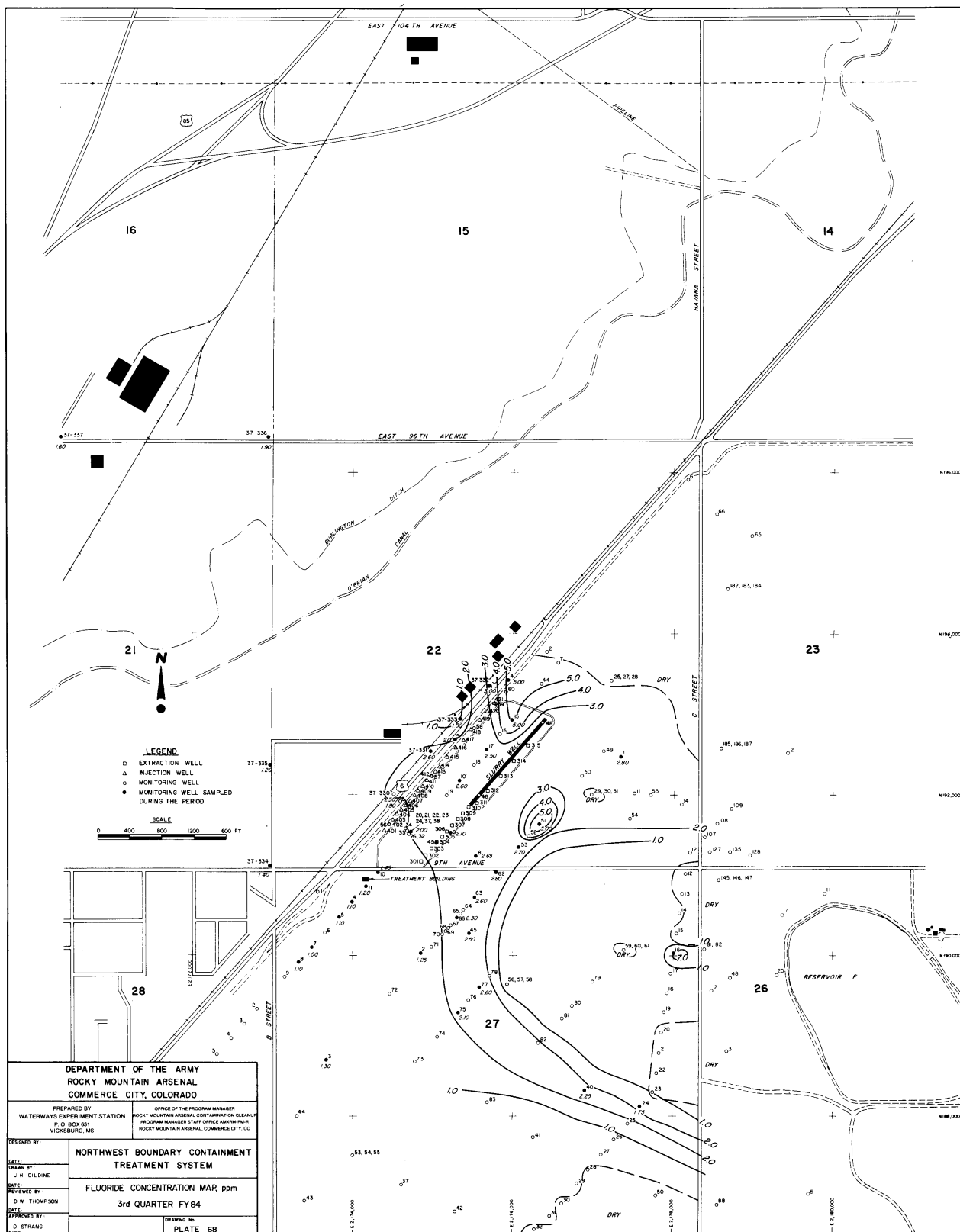


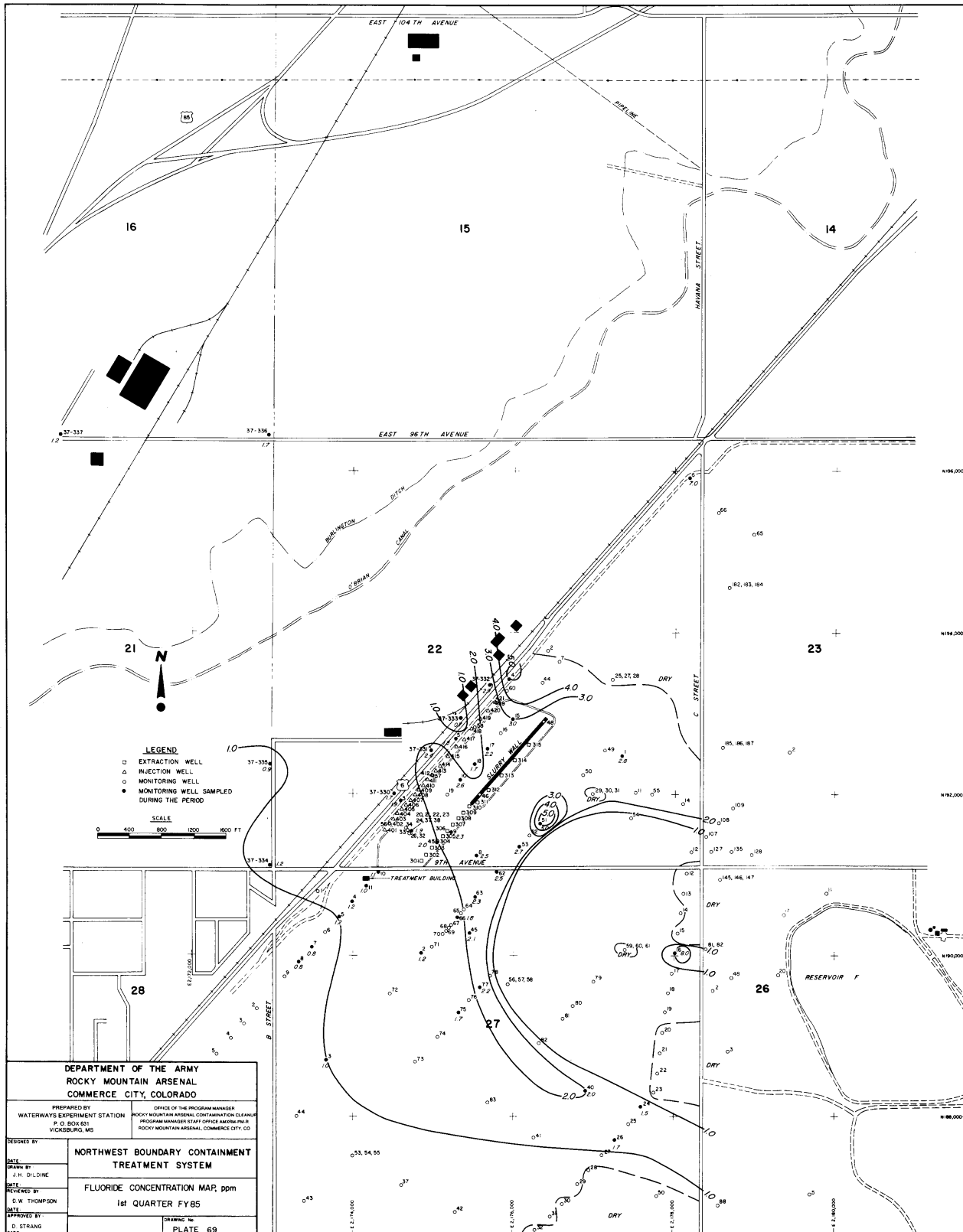


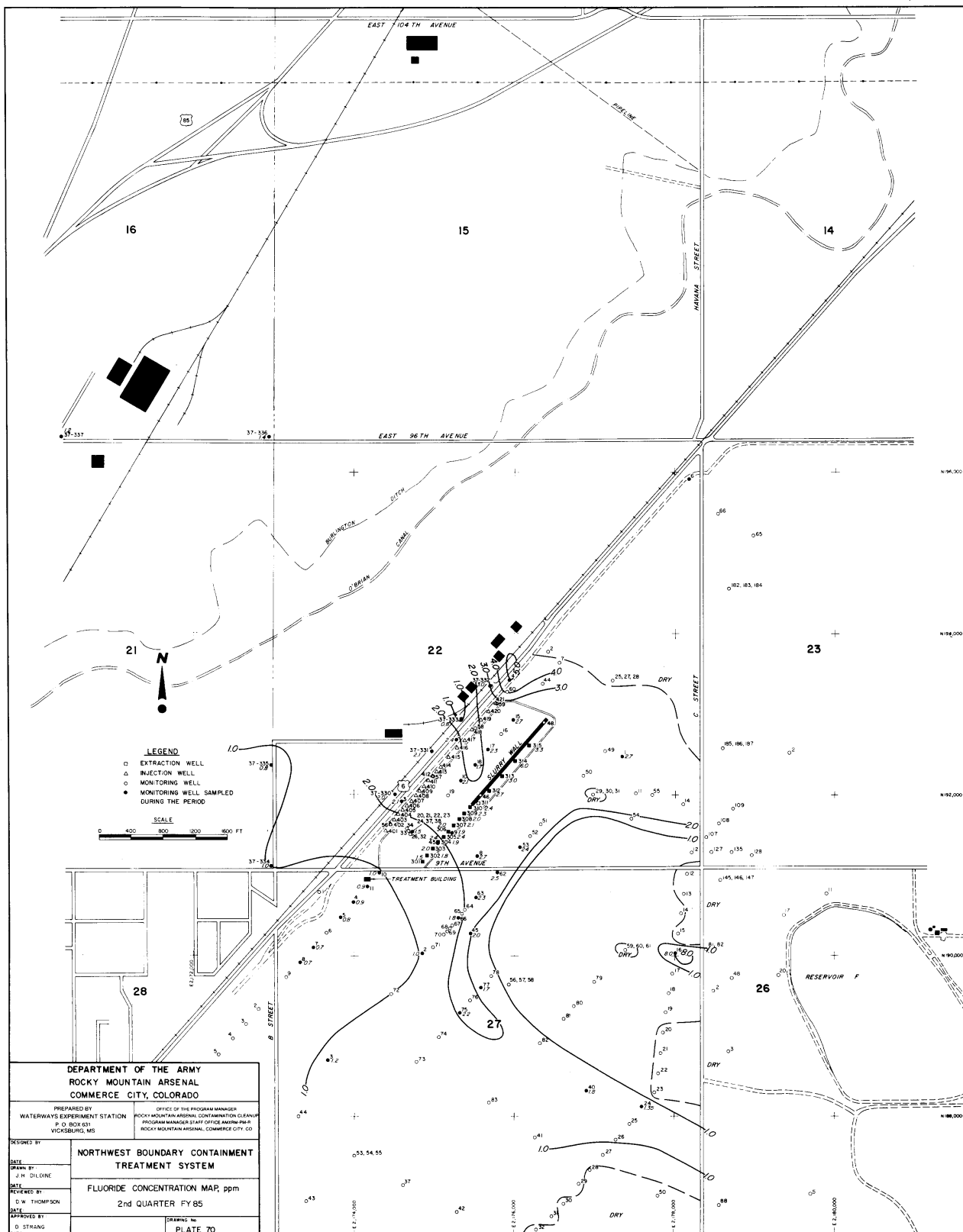


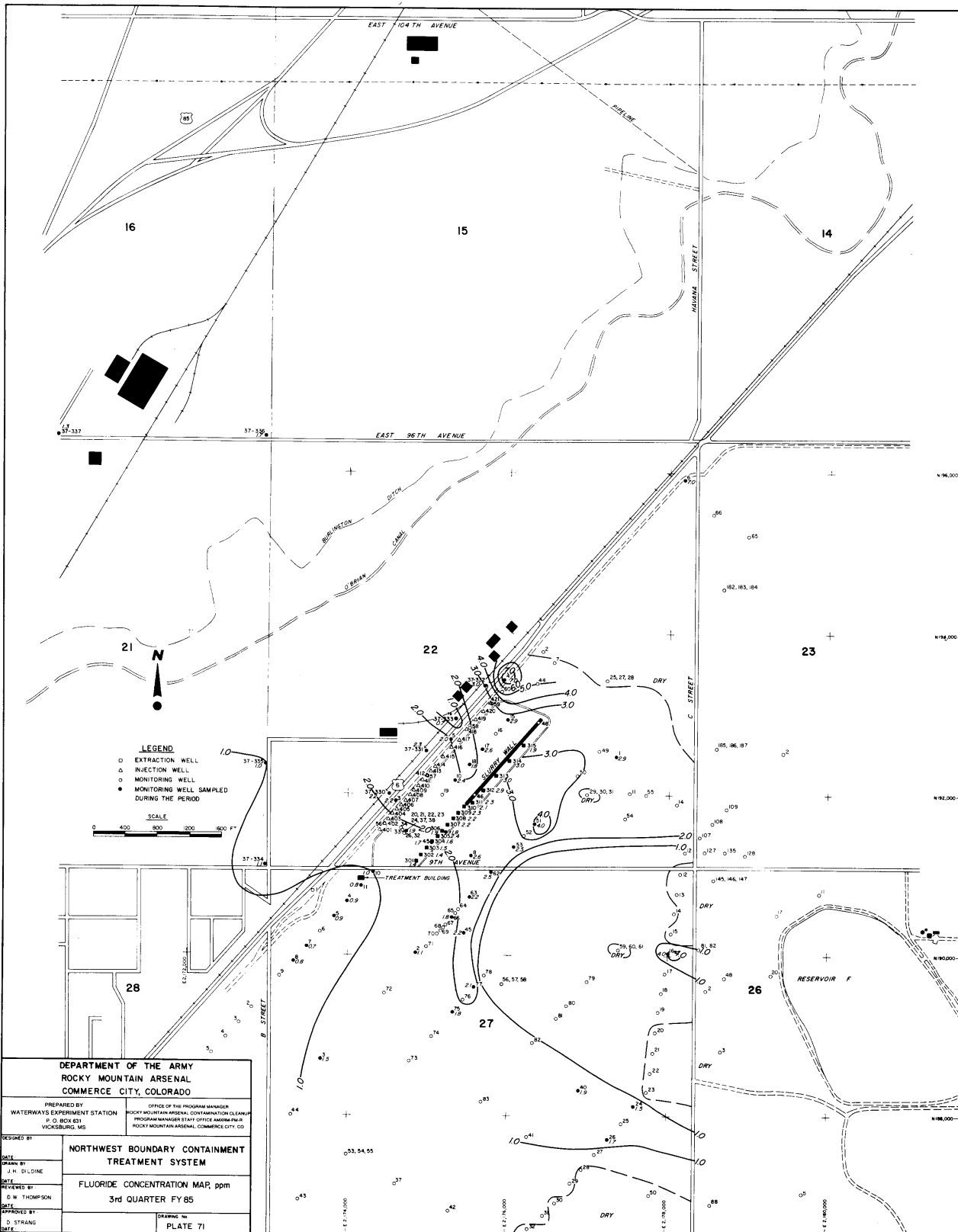


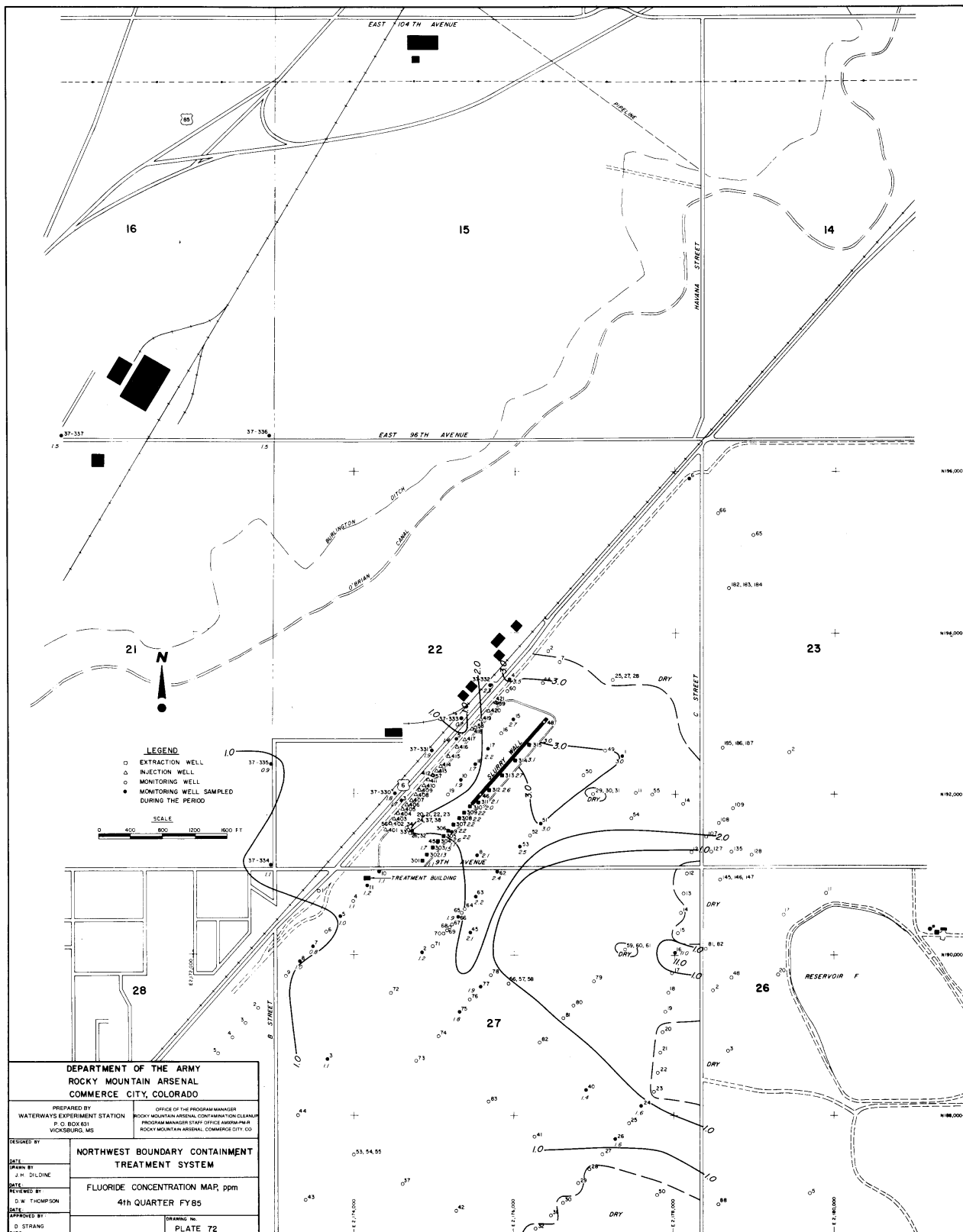


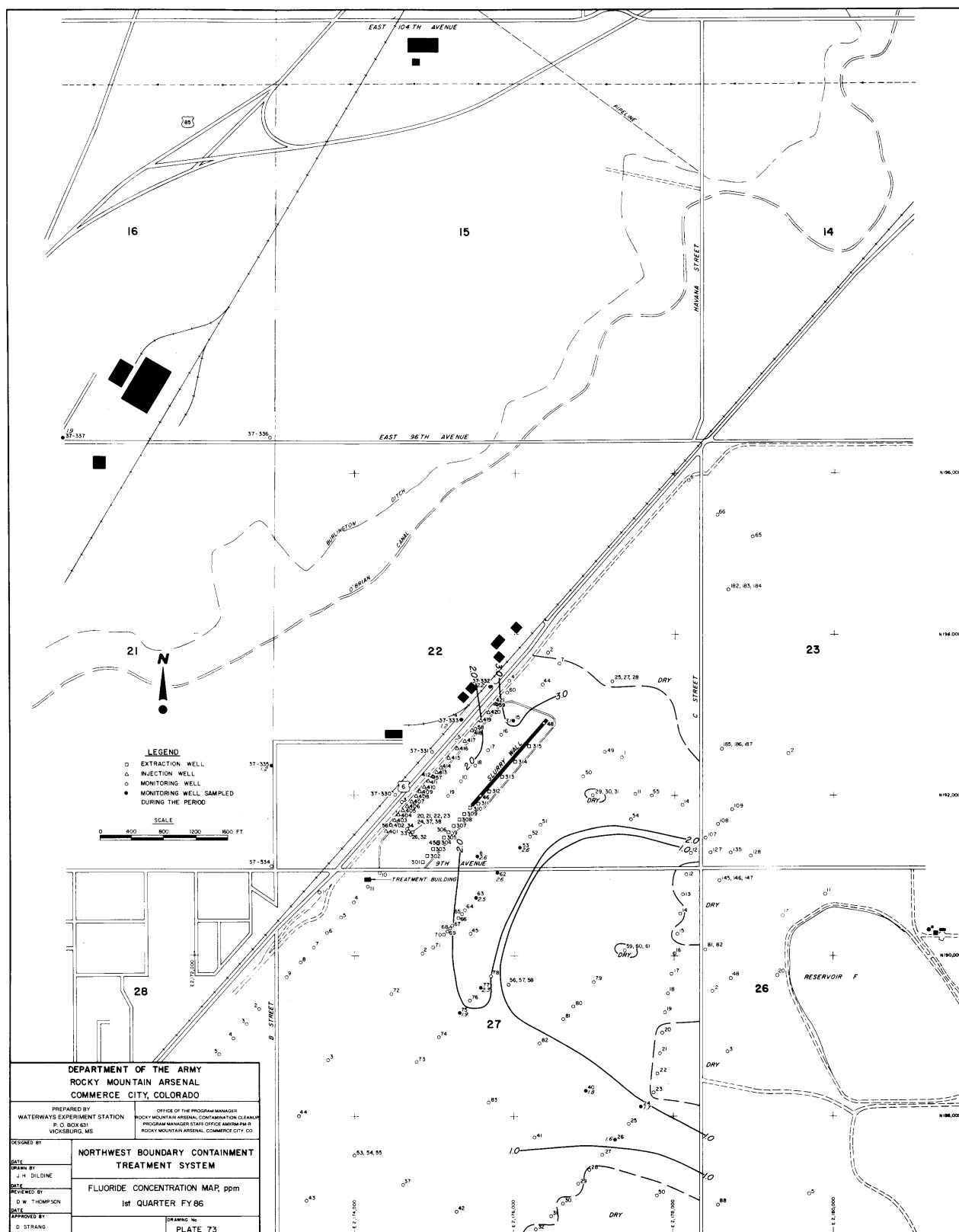


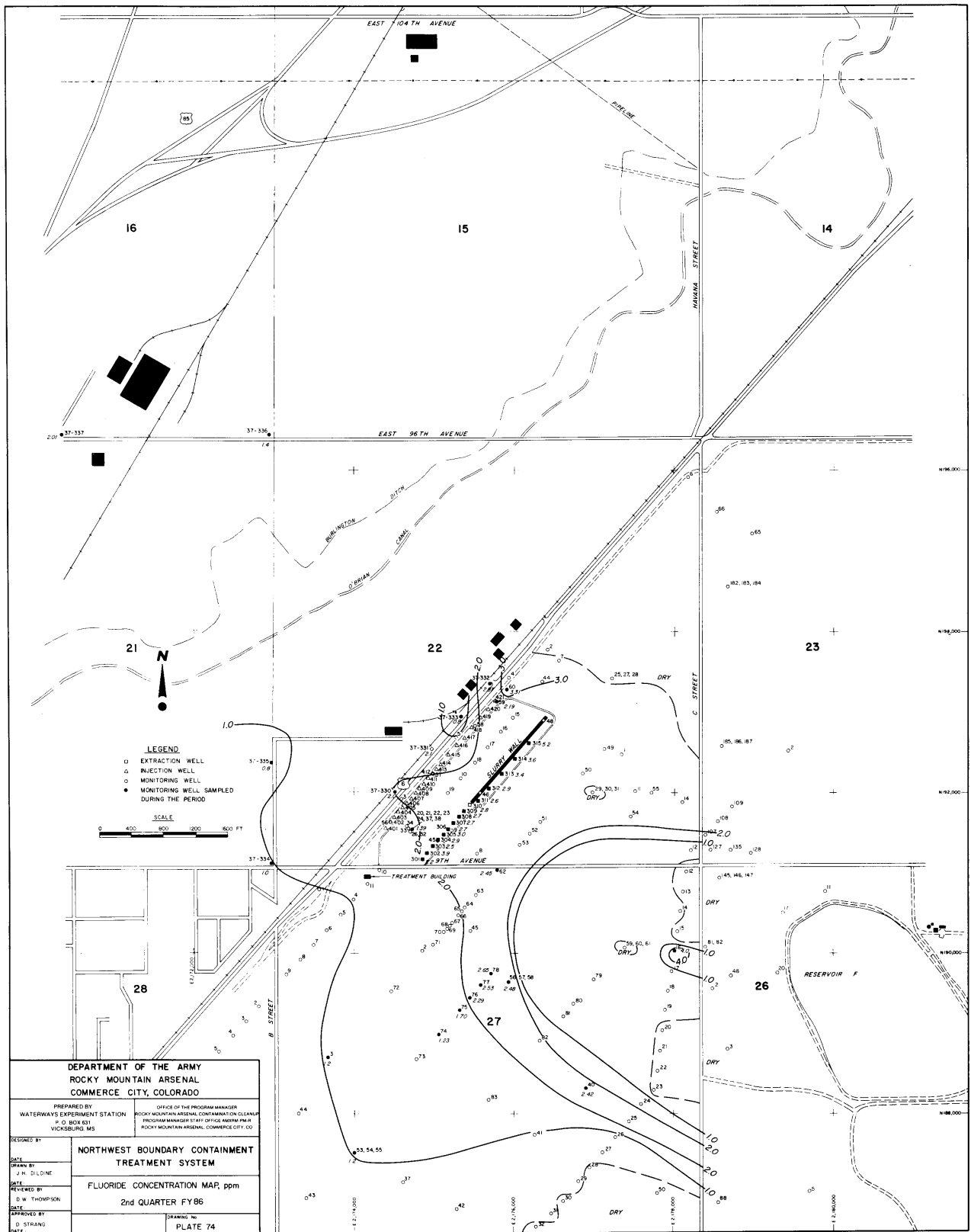












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| <b>DEPARTMENT OF THE ARMY</b><br><b>ROCKY MOUNTAIN ARSENAL</b><br><b>COMMERCE CITY, COLORADO</b>                                     |   |
| PREPARED BY<br>WATERWAYS EXPERIMENT STATION<br>P. O. BOX 631<br>VICKSBURG, MS  | OFFICE OF THE PROGRAM MANAGER<br>ROCKY MOUNTAIN ARSENAL CONTAMINATION CLEANUP<br>PROGRAM MANAGER STAFF OFFICE ANRPM-PM-1<br>ROCKY MOUNTAIN ARSENAL, COMMERCE CITY, CO |
| DESIGNED BY<br>DATE<br>DRAWN BY<br>J. H. DILINE<br>DATE<br>REVIEWED BY<br>D. W. THOMPSON<br>DATE<br>APPROVED BY<br>D. STRAND<br>DATE | <b>NORTHWEST BOUNDARY CONTAINMENT<br/>TREATMENT SYSTEM</b><br><br><b>FLUORIDE CONCENTRATION MAP, ppm</b><br><br><b>2nd QUARTER FY86</b><br><br><b>PLATE 74</b>        |

